FFE Manual

WELCOME TO YOUR NEW SHIP

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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 Liquid-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 keeps 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!

Figure 1. Your Saker Mk III
2. YOUR 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 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 Shipyards 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. (* 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.)

Figure 1 shows you the layout of your Command Console. Anyone used to flying with the decrepit Faulcon 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.

Figure 1.

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

The Inventory Panel (F2)
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.
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.

**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.

**BACK VIEW (F7)** when reversing into a system, remove your seatbelt, 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 headup 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 below).

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!

These 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 (F1) 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 list, 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) 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) Keyboard Shortcut: 'X'
NAVIGATION COMPUTER

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! Keyboard Shortcut: 'N'

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

The Navigation Computer at 'Gateway'
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:

**JOURNALS (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 Stations and most Alliance stations
- FRONTIER NEWS - Available at all Alliance Stations
- RIG (RANDOM INTERGALACTIC GOSSIP) - 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.

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 Section 13 'Upgrading your Ship'.

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...........

(* Ancient Earth Saying, now in common use as meaning a very short distance, but one that takes a very long time to get to)
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 freelance 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 the military handbook that accompanies this manual

MINING INSTALLATIONS (F12) The last, but by no means least screen 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! Keyboard Shortcut: 'D'
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:

- **GALACTIC MAP (F5)**: Touching the Galactic 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.

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. Your current system is marked by the pink cross. In the start position, this is 'Gateway' (see Figure 2).

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 2) is marked with a green cross and 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.

![Figure 2. Titican is highlighted by a cross. 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 -](image-url)
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.

**ORBITAL 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 3) 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.

![Figure 3](image)

**DATA SCREEN (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.

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 atmosphere as you'll need atmospheric shielding to enter any of these - see **Section 13** on Upgrading your Ship for more information.
GALACTIC VIEW (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.

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.

SOCIAL STRUCTURE (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 4.

ZOOM IN (F11) As it suggests, this allows 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 maps - often gives you a better perspective on things,
REMOTE ORBITAL MAP This is identical to the Orbital Map but pertains to the remote system that is currently targeted on the Galactic Map. This Map is particularly useful for targeting your autopilot. (See later) Keyboard Shortcut: ‘R’
6. THE COMMUNICATIONS PANEL (F4)

The Communications Panel is the last of the four Primary Panels. This is the one than 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 OK. Do not attempt to leave without that OK 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 SERVICES (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. For more information, see Section 13 on upgrading your ship equipment. See Figure 5.

Figure 5. Don't forget to service your ship regularly

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 used - so many in fact, that we've produced an extremely useful section on Bulletin Boards, which you will find further on in this pack. (See page 130)
**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 6).

*Figure 6. The Stockmarket*

**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...*. [*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.*]

**SHIP TO SHIP MESSAGING** You can't get ground-based communications while in space so touching the 4th Primary Panel (or F4) while in flight will operate your ship to ship massaging system: At certain points in your travelling life, you will need to contact other pilots. 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, that carry 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.
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 below:

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

Features listed below are considered in more detail in Section 13 'Upgrading Your Ship'

NAVIGATION CONSOLE

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

NAVIGATION TARGET CONTROL. 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 Target Control blinks while seeking and there is an audible bleep to let you know when it has successfully locked onto a target. The green target square will then lock onto the current target and give you a continuous range read-out either in astronomical units or in kilometres. Keyboard Shortcut: 'T'

AUTOPILOT ACTIVATOR 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.

Keyboard shortcut: the TAB key cycles between all three flight functions - engines off, engines on 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 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 UP/DOWN 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. Keyboard Shortcut = 'U'

NOTE: When flying through space, your ship will pass through clouds of micrometeorites which 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 ON/OFF 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. Keyboard Shortcut: = TAB.

STARDREAMER TIME CONTROL. 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. Touch the appropriate arrow to activate the control.

Keyboard shortcut: SHIFT + F1, F2, F3, F4, F5 takes you sequentially through the StarDreamer settings.

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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 TARGET CONTROL The red circle at the top of the Battle Console is your Battle Target Control. 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 o pass through the centre becomes your active target. The Battle Target Control 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 continues range read-out to show you the distance between you and your opponent. Keyboard Shortcut: 'T'

NOTE: there are no targeting tunnels when you have selected a Battle Target.

MISSILES AND MINES 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 Keyboard shortcut = 'M' (fires missiles and
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. Keyboard shortcut: ?

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 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 If you have one of these on board, touching this panel will activate it immediately. No need for time consuming targeting. Useful, huh?

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.
11. FLIGHT CONTROLS  
(TUTORIALS ON TAKING OFF, MANOEUVRING AND LANDING)

The Saker is a surprisingly easy craft to fly, especially when you consider the enormous power-to-weight ratio is 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.

STANDARD 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 along 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 TO LEFT OR RIGHT: Hold down the right mouse button and move the mouse to left or right.

With the engines OFF, pressing the RETURN or ENTER key fires the rear rockets and accelerates you forwards. Holding down the right SHIFT key fires the retro rockets, slowing you down.

With the engines ON, 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 you have selected. Your SET and 'ACTUAL' speeds are shown in View mode (see Fly by Wire).

THE VIEW SCREENS

Figure 6.
Figure 7.
FFE Manual

You will notice that when in Forward View that there are in fact two sets of crosshairs shown on your head-up display. one of them (see Figure 6) 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 (see Figure 7), composed of DIAGONAL lines, shows the direction your ship is MOVING.

If the two sights are aligned (see Figure 8), then you are moving in the direction that you are facing.

![Figure 8](image)

**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 are flying at a steady 1000 KPH, 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 9).
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 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.

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

LAUNCHING FROM A SPACE STATION

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 OK.

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 (RETURN) key to activate the engines and accelerate you out of the area.

Figure 9. The SET Speed is lower than the ACTUAL speed
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 10)

![Figure 10. Launch procedure initiated](image)

**DOCKING AT A SPACE STATION**

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, 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.

**LAUNCHING FROM A PLANET DOCK**

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 by using 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 (RETURN) 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 your vertical thrust and your ship now flies as normal.
FFE Manual

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 AT A PLANET DOCK

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 11) [*Or to give it it's official title: crashing]

![Figure 11. Launching from Hope](image)

DOCKING - THE COMPLETE COURSE

We did consider a full tutorial in launching a ship, but we figured that absolutely no-one could have any trouble in pressing the launch key and then accelerating away from the launch pad as quickly as possible. What we have found, however, is 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.

1. IN SPACE

of the two forms of docking that are available, docking in space is by far the easiest, if only because if 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. 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 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.

"Cruise towards the centre of the docking port..."

2. ON A PLANET
Planet side landings are a different kettle of fish altogether. 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 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 50 KPH. 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 OK, 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), and you should drift gently down to the base.

Congratulations!

SAFETY IN SPACE

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.

1) Stay away from Anarchic or Feudal systems. This is where Police control is at its weakest, and you will find the greatest abundance of pirates and other space criminals.

2) 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.
3) 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.

4) 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, AND HOW TO READ THEM

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 galactic map, an orbital map and your autopilot. Here’s how to do it.

1. 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 Galactic 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 (arrow) 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.

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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 Data (F7), Economic (F9) and Social Status (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?).

2. 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.

HYPERSPACE MIS-JUMPS Naturally, the engineers at the New Rossyth Shipyards 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 miss-jump 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 miss-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 miss-jump, press the ALT key while engaging your the Hyperspace drives.

3. LOCATING A BASE

You will notice that you are in the middle of nowhere when you arrive at a system. 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 real-time 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 Data panel (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 heave into view.
You can target on a planet, orbital station or space port in view mode by clicking your mouse pointer on the appropriate target OR by using the Navigation Target Control on the Navigation Console Target in Map mode. Click on the green target square and then click on the site of your choice in any one of the map modes that show you possible targets (orbital map, data map)

OR by using a Navigation Computer (if you have one) by simply pressing 'N' in View mode 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

4. 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. As you near the end of your trip, the boxes for the tunnel are placed closer together in Pseudo-space, and your aim is to pass the boxes at a steady rate. Therefore, as you get nearer to your end point, the boxes will appear to pass more quickly, and you will have to slow down to keep them at the same steady pace.

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

5. THE AUTOPILOT - YOUR COCKPIT CHUM

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 beneath it. 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?

LONG DISTANCE TRAVELLING AND THE STARDREAMER

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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 11, 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.

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.

Keyboard shortcut: SHIFF + Fl, F2, F3, F4, F5 take you sequentially through the StarDreamer settings.

**FLYING IN BAD WEATHER**

Believe it or not, but space has a lot of bad weather, and just like terrestrial weather, you have to take special care when flying through it. No, 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.

1. **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)

2. **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 haring across systems.

**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, lighting 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:

1. **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:

   i) Slam the retros on full to stop any acceleration

   ii) Spin the ship around to face the opposite direction, so that you are flying backward.

   iii) 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.

2. **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.

   i) Fly directly toward a planet, and don't even think about levelling off.

   ii) Watch the nose of your craft. As soon as the shield begins to heat, you are beginning to enter orbit.

   iii) **QUICKLY** pull back on the stick to flip the craft so that you are falling backward toward the planet.

   iv) 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.
3. 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.

I.) Pull up alongside the craft you are going to dock behind, keeping a distance of around fifty metres between yourself and it.
II.) 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.
III.) 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!

[Extract courtesy ‘Up In The Sky In 10 Easy Stages', Williams and B'Turhg']
12. 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.

WEAPONS, AN IDIOT'S GUIDE

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 to the section on Upgrading Your Ship.

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 BAR or use the button on your joystick.
Lasers fire from the view that your 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**

![Missile Image]

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. If it doesn't make contact with the target within 60 seconds, a missile 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.

Keyboard shortcut: 'M' key (fires missiles in order)

**MINES**

Mines are also explosive devices fired by ships, but these differ from missiles in that they are completely unpowered. 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.
ENERGY BOMBS

The last, but by no means least line of attack 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. The eruption is sent out immediately, and you can watch the scanner to see the results of your attack.

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 beginner’s 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.

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 'W'.

![The First rule of Battle: 'Know Thine Enemy']

**OPENING FIRE**

**[BOTH MOUSE BUTTONS OR SPACE BAR]**

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 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 combatteers 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 combatteer 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 hint)

Shields keep you flying...

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.

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 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 Section 13 on Upgrading your Ship for more details.

COMBAT TECHNIQUES - THE 4TH DAN GUIDE TO DEATH

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, so 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.

1. 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.

2. COWARD'S REVENGE
Any great general will tell you that war is merely an act of national psychiatry. Mind games.

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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.

3. 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 then 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.

4. 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.
13. UPGRADE YOUR SHIP

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 Shipyards 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 is. What more could you ask for.

HOW TO DO IT

Upgrading your ship is easy... 

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 Shipyards menu (F6) on your Communications Panel (F4) to see what's on offer. 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 used, as it is, 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 this shopping list, and most importantly note the sizes of the

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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.

Available upgrades

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NON-OFFENSIVE EQUIPMENT

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

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.

THE 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!

AUTOMATIC PILOT

WHAT IS IT?
As its name suggests, this is a computerised pilot, designed to take the tedious 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.

THE 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 Map mode. OR use the Navigation Target Control on the Navigation Console (See page 19) OR use your Navigation Computer. (see page 52) TO ENGAGE THE AUTOPilot: click on the Autopilot Activator on the Navigation Console. The Autopilot Activator blinks when the drive has been engaged. 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. Keyboard shortcut: TAB key (cycles through Engines On, Engines off and Autopilot)
Life is simple with an Autopilot

**AUTOREFUELLER DEVICE**

**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.

**THE 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**

**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.

**THE 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
Again, this is a once-only purchase, and is fitted at the starbase. 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

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.

THE 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.

ESCAPE CAPSULE

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 elected from the ship, saving your life but unfortunately not your cargo.
THE 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. OK, so you lose some money, but you live to trade another day.

HOW TO USE IT
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.

EXTRA PASSENGER CABIN

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.

THE 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.

**HULL AUTO REPAIR SYSTEM**

**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.

**THE 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.

**HYPERSPACE CLOUD ANALYSER**

**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.

**THE 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. Keyboard Shortcut: '/'
NAVIGATION COMPUTER

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 Rosyth 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.

THE 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
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 (Providing you are in space when you use it), Keyboard shortcut = 'N'

SCANNER

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 elected 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.

THE 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. in 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.

SHIELD GENERATOR

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.

THE 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.

RADAR Mapper

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 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.

THE 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

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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 12)

Figure 12. The Radar Mapper in use

DRIVE SYSTEMS

INTERPLANETARY DRIVE

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 flitting between a space station and a planet in search of the best
trade prices, but nothing more.

THE 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 apologies for even mentioning
it.

STANDARD HYPERDRIVE

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.
THE BENEFITS
They are cheap, practical and reliable if serviced properly. Fuel is available everywhere you go, 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. There are currently seven popular sizes of Hyperdrive, but you can buy higher if you visit specialist shipyards.

MILITARY HYPERDRIVES

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.

THE 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, any fuel used creates waste, which must be disposed of (at a space station, dumping in space is illegal remember!). 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

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.

THE 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.

CARGO SCOOP CONVERSION

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.

THE 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.

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. 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 misaimed canister can damage your shields.
MB4 MINING MACHINE

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.

THE 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.

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 take it. Keyboard Shortcut = 'D'

OFFENSIVE EQUIPMENT
Now we come to the really important stuff, the items that will prolong your life span and keep you in the skies. The stuff you really can't be without, and 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.
We've grouped the offensive weaponry into three main categories, to make it even easier for you to find the things you are looking for: Lasers. Explosives and Electronic Defence. Read on

LASERS

30 MW MINING LASER

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.

THE 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.

1 MW PULSE LASER

WHAT IS IT?
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 combatant to get very good at dogfighting 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.

THE BENEFITS
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.

5 MW PULSE LASER

WHAT IS IT?
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

THE BENEFITS
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 useful against larger ships, and at longer range, this is an excellent stop gap between your starting laser and a full Beam Laser

BEAM LASER

WHAT IS IT?
Pulse Lasers become outmoded about 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.

THE 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 Tonne of cargo space on your ship.

COMBAT COMPUTER

Screen shot of Combat computer
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. To activate the Combat Computer, make sure you are in View Mode (View Panel or Fl) and then touch the Combat Computer panel (Fl).

THE BENEFITS
Takes a lot of the hassle out of targeting your weapons and generally making life a lot more fun while fighting off the ravening hoards. 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 Fl) and then touch the Combat Computer panel (Fl). Your combat computer will fill your head-up screen and can be used to target your weapons.

LASER COOLING BOOSTER

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.

THE 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.

PLASMA ACCELERATORS

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.
THE 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.

XB13 PROXIMITY MINE

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.

THE 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

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.

THE 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.

KL760 HOMING MISSILE

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 it's target in that time. if it doesn't it will explode into space, and hopefully hit your opponent with the shrapnel.

THE 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

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.

THE 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

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.

THE 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.

The NNSDD at work...

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

ECM SYSTEM

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.

THE 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.

NAVAL ECM SYSTEM
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, only 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!
14. SERVICING AND MAINTENANCE

Remember: a regular service keeps your ship in shape... 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 appreciate the astronomical cost 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'.

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 miss-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 you die.

So, we recommend you get your engine and craft serviced at least once every six months. It's an expensive affair, but extremely necessary it 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 only last as long as you do, but that will be a far shorter time span. You have been warned.
15. COMMANDER PROFILE

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 shows the world that you are more than just a Combateer, and 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 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 that 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.

In order, from top to bottom, the rankings work like this:

ELITE
Deadly
Dangerous
Competent
Above Average
Average
Below
Average
Poor
Mostly Harmless
Harmless

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.
MEDALS Your medal collection is also shown under the Inventory Panel (F2) in the Commander Profile (F7).

Medals, 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).

The Alliance of independent States, not having a Navy to speak of, refuses to 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 POLICE RECORD

The Police are constantly monitoring the space lanes for perpetrators 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, but stick to the side of the law and 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.

1) PIRACY AND MURDER
It's living proof of the archaic police system that exists in the galaxy when attacking a ship in the presence of a police vehicle constitutes piracy and murder. Still, whatever you do, never attack a vehicle near a space station or ground base - both are crawling with cops.

2) 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.

3) DOCKING WITHOUT CLEARANCE
Space Stations and planet based landing pads are the property of Air Traffic Control. All trespassers will be blown away without trial.

4) LAUNCHING WITHOUT CLEARANCE
It's a very hard job directing the flow of traffic in and out of a planet - that's why the Air Traffic Controllers are paid so much. Go against them, and you'll rarely make it to the hyperspace zone.
5) LOITERING
Hanging around planets and space stations is not permitted, and any craft that do are liable to be boarded, searched and then destroyed.

6) ILLEGAL IMPORTS
Every planet has a list of embargoed 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.

7) ILLEGAL EXPORTS
Participating in the black market can earn you tons of cash, but can also cost you your ship, not to mention your life.

8) ASSASSINATION
Some of the highest paid missions in the world 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.

9) 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.

10) 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.

11) 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.

12) NON-PAYMENT OF POLICE FINES
All of these crimes, and the hundreds of thousands more carry stiff financial penalties as well as death, and 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.
16. YOUR FIRST FLIGHT

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 MkIII’s flight controls.

It will help you to understand the following instructions if you read Chapters 3 and 4 to familiarise yourself with your ship and the layout of your Command Console before you attempt your first flight.

YOUR FIRST VIEW

This is your ship...

The Saker MkIII 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) 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 (arrow) keys enable you to move the viewing camera around and take a good look at your Saker Mk III.

A CLOSER LOOK

YOURSELF AND YOUR SHIP (Inventory mode)

YOURSELF

For those of you with trouble remembering your name in the morning, the Ship’s Inventory
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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 mindnumbingly clean. Don't worry, it won't last.

**YOUR SHIP**
Your Saker MkIII 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 TO see the ship's cargo, select the from the ship's Inventory, select F10. As and when you have cargo on board, this screen tells you what and where. Check it out later when you've bought something.

NOTE - just buying fuel isn't enough. You have to transfer it from your cargo hold to your fuel tank. Unless you have an 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

**A WIDER VIEW**

Finding Your Place In The Galaxy (Map Mode)

1. **THE GALAXY**

![Figure 12. 'Gateway is at sector - 1,4' *](image)

Select the Map Panel on the Main Console (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 12) Details of the system scroll up beneath the clock on the text screen on the lower right of your console and the sector co-ordinates (-1,4) are displayed on the left above your Dual Console.
2. YOUR SYSTEM
The details you are presented with almost always refer to the system that you have highlighted on the Galactic 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 Fl 1 and Fl 2 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 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.

Select the Data 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 13)

Clicking again 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.

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 on slaves and those caught doing so will be seriously unpopular not to say suddenly unsafe.

POLITICS

Select the Social Structure 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 AIS ruling council, you should be perfectly safe in Gateway.

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3. WHERE TO GO?

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 head upward and slightly left to the system of Titican at sector co-ordinates -2,5 at a distance of 4.42 light years from where you're sitting. (It's the next system up from Gateway, you really can't miss it). The 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 Remote Orbital map (R) to have a look at where things are in the new system.

Select the Data Screen (F7) and look at the planets in the newly highlighted system. The second planet along is 'Ienning'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)

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

4. 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).

* STOCKING UP

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

Your check list for stocking up before flight goes like this: Ship items (F6) Bulletin board (F7) Fuel (F8) Trade items (F8)
At the moment, your Saker MKIII is perfectly suited to your needs - which is just as well because you don't have the dosh 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 on 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. 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.

Check out the Bulletin Board for useful missions

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
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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.

JOURNALS

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 journals.

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.

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)

The Stockmarket You need to visit the stockmarket to buy and sell anything. * Select the Stock Market panel (F8) and scroll down the list. (See Figure 14) 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 you 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 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.

GETTING OUT OF HERE

There are four basic steps to space flight and all are covered in a great deal more depth in Section on Flight Controls:

Permission to launch
Launching
Hyperspace
Landing

PERMISSION TO LAUNCH
Make sure that the Dual Console on the far left of your Command Console is in the Navigation 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, 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 (RETURN) key for a few seconds and you will begin to leave the atmosphere of HOPE under manual control.

If you've never flown before, this is the time to get the hang of the ship's controls. Read the Flight control section of your manual and practice a variety of manoeuvres. Fly around above the planet for a while - New Blackelk is on the coast and you can rapidly improve your flying skill if you practice flying into the bays and inlets around the coast.

Use the various views (Front F6, Back F7, External F9) to take a good look at the view - this is probably the only time in your life when you'll be flying without a deadline to meet or a pirate on your tail so make the most of it

HYPERSPACE
You could get to Titican without Hyperspace but it would take you a seriously long time so we recommend that you use your Hyperspace Drives to reduce the tedium.

Take a quick look at the Galactic map in Map mode (F3, F5) and check that Titican is still highlighted as your hyperspace destination. If it's not, re-centre on it now. if you have a valid hyperspace destination set, the Hyperspace Activator will show in the centre of the Navigation Console.
Return to View mode by pressing the View Panel or F1
Engage your Hyperdrives by selecting the Hyperspace Activator or pressing 'H'. Watch the fabric of space part before your eyes and close again as you emerge in the vicinity of Titican. Your hyperspace cloud is large and particularly exciting to watch (take a quick look out of the back with the Rear View screen but don't forget to look forwards afterwards) - it’s also a flag to passing pirates so don’t hang around once you get there.

Hit the ENTER key to increase your set speed as fast as you can to clear the area. CONGRATULATIONS! You have just completed the first stage of Space Flight!

ARRIVING

EASY DRIVING - THE AUTOPILOT
Your automatic pilot is included in your Saker MkIII 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 is to go into the Orbital Map (F6) and Zoom In until you can see the planet of Jennings Hollow quite clearly if you need to rotate the map, hold down the right hand mouse button and rotate your mouse. (See Figure 15) Click on ‘Hope’¹ to centre it in the screen then Zoom In again until you can see the orbital space station of 'Old BlackElk'. If the station is behind the planet, rotate the map using the right hand mouse button to bring it back into view.

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¹ Originale manual referred to Jenning’s Hollow and Argent. I couldn’t find them so I replaced them with Hope en Old BlackElk (Franke Scheper).
Now click on the green Navigation Target Control square at the top of the Navigation Console. Click on the orbiting space station "Old BlackElk' to select it as your autopilot destination. The homing square will lock onto your target to let you know that selection has been successful.

NOTE - The innovative new Navigation Computer from the New Rossyth technologists will do all this for you - down to engaging your Auto-pilot (as long as you're in space). Get one as soon as you have any spare credit.

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 targeting tunnels off in Preferences, there will be a series of green concentric squares focusing down on 'Old BlackElk'. (See Figure 16)

![Figure 16](image)

**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 Time Control is located on the right hand edge of the Navigation Console.

The small arrow above the pause button gives you a normal rate of time. Each of the longer 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. Select the top arrow now (or press SHIFT and FS together) 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 Section 11 (Flight Controls). For now, 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 JUST COMPLETED YOUR FIRST SPACE FLIGHT.

ON LANDING

Your check list once landed goes like this:

Bulletin Board
Stockmarket

BULLETIN BOARD

Figure 17. The Bulletin Board at Old Blackelk

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. (See Figure 17)

STOCKMARKET

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 refuelling) before you check out a new system to visit.

HAPPY FLYING COMMANDER
ALL SPACE IS YOURS
BOB IASCATTI'S HANDBOOK

INTRODUCTION

Hi, Big Bob here. As everyone will tell ya', the galaxy is a rough place, with far too many two bit grano's trying to divide you and your hard gotten cash, while trying to palm you off with the worst heap of Relta's offspring you ever saw. I've seen too many young pilots come through this neck of the woods, with their eyes on the stars and not on their wallets, and every one of them has walked away with a craft that might just about survive being moved by a crane from a docking bay to a Dodec Station exit ramp, and that's the lucky ones!

So one day I wake up, and I think to myself 'Hey Big Bob, what you need to do is come up with a guidebook for all these rookies. One that imparts your years of wisdom and experience in these matters, while only costing 25 credits, so as to not to break the bank. ‘Bob, that's a great idea', I answered back, and three years later here it is. OK, so it might not look much, but the information within will give you the edge over the competition that might, and only might, make you a winner. Not bad for only 40 credits.

What do ya mean, I said it was 25. Ain't you ever heard on inflation? Come on, get out of here.

Yours,
THE SHIPS

ADDER

IN GENERAL:
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 advice 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 burn into planets. Seriously though folks, this actually isn't that bad a craft. OK, 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

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IN GENERAL:
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

<table>
<thead>
<tr>
<th>PICTURE</th>
<th>SPECIFICATION</th>
</tr>
</thead>
</table>
| ![Picture](image.png) | **HULL MASS:** 30 t  
**MASS (FULLY LADEN):** 150 t  
**INTERNAL CAPACITY (NO DRIVE):** 120 t  
**RETRO THRUSTER ACCELERATION:** 7 Earth G  
**MAIN THRUSTER ACCELERATION:** 22 Earth G  
**CREW:** 2  
**GUN MOUNTINGS:** 2+6  
**MISSILE PYLONS:** 1  
**ALLEGIANCE:** INDEPENDENT, FEDERATION |

IN GENERAL:
In the war against the Empire, the Asp explorers were the original scout ships. Built to be fast
a 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
generators, which were known to overheat quite rapidly in those early technology days. All
equipment 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 22 G 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.

BOA

IN GENERAL:
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 it 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.

COBRA MK 1
IN GENERAL:
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 it's 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 affected the scanner readings, but none of these were taken too seriously. 35 years after the Cobra Mk I was launched, a Faulcon 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 11, 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.

COBRA MK 3

IN GENERAL:
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 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.

BOB’S THOUGHTS:
*How can you go wrong with a Cobra Mk III? OK, 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 theirs, I’m happy to buy it off them for 60% of current value.*

CONSTRICCTOR

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IN GENERAL:

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 show 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?

EAGLE LONG RANGE FIGHTER MK 1

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IN GENERAL:

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 111, 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. OK, 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 Long Range Fighter MK I is that the pulling power it gives you 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.*

EAGLE LONG RANGE FIGHTER MK 2

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IN GENERAL:
Comments of space 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 it's smaller brother, but that's only because it was. 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 11 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 1. 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?

EAGLE LONG RANGE FIGHTER MK 3

IN GENERAL:
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 11. 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 11. 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 retro 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.

FALCON

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IN GENERAL:
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, but this unusual design is one of the biggest achievements in aerodynamics yet. 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.

GECKO

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IN GENERAL:
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. Being as the costs of such a mission are sometimes astronomical, this was a trade that made very little money, and 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

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FFE Manual

HULL MASS: 241 TONNES
MASS: 2425 TONNES
INTERNAL CAPACITY (NO DRIVE): 2184 TONNES
RETRO THRUSTER ACCELERATION: 3 EARTH G
MAIN THRUSTER ACCELERATION: 6 EARTH G
CREW: 12
GUN MOUNTINGS: 4+F
MISSILE PYLONS: 8
ALLEGIANCE: INDEPENDENT, ALLLANCE, FEDERATION

IN GENERAL:
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 skilful 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.

GYR

IN GENERAL:
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. OK, 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.

HARRIS

IN GENERAL:
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.

HARRIERS

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IN GENERAL:
In days of old, the Harrier 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 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

IN GENERAL:
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 combat
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?

IMPERIAL COURIER

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IN GENERAL:
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 ill, 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 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 it 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.

IMPERIAL EXPLORER

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IN GENERAL:
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!

IMPERIAL TRADER

IN GENERAL:
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 all the armaments that made it a fierce combat
FFE Manual

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?

INTERPLANETARY SHUTTLE

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IN GENERAL:
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 the planet surface is a dignified and intelligent thing to do. By this thinking, politicians are also obsolete.

BOB’S THOUGHTS:
Ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha ha has. Enough said.

KESTREL AIRFIGHTER

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<tr>
<td><img src="image2.png" alt="Airfighter Image" /></td>
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IN GENERAL:
The Federation built two Airfighter craft in a very short space of time, this and the Hawk, and it is generally agreed that the reason the craft were named independently is because the Federation don't want their good people to know that these are in fact Mark I and Mark II of the same thing. With the Kestrel they almost got it right, but it was just a bit too large and a bit too slow to be t. It is a fine combat ship, though, and one of the best that the Federation has in it's military one of the first craft to be able to enter planet atmosphere, the Kestrel Aifighter has the swept back wings that make Federal ships so easy to recognise.

BOB'S THOUGHTS:
_I honestly have no idea why the Federation decided to degrade this ship by bringing out another Airfighter Personally I can't really tell the difference between 25 Earth G acceleration and 27 Earth G acceleration, and I can always find use for an extra couple of tonnes of cargo space. Between you and me, I reckon they should have worked on their retro engines more than anything else, but then who am I to go against the Federation? I'm sure they know what they're doing._

KRAIT

IN GENERAL:
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 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, and 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

IN GENERAL:
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 1. This trading ship is about as close to the knuckle as you are going to get, with almost no optional extras but a hell of a lot of trading space. Its look is a 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.

LANNER 2
IN GENERAL:
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 2 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.

LIFTER

IN GENERAL:
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.

LION

IN GENERAL:
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. 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. Combatteers 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

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当谈到防御严密的贸易船只时，你不会比Mantis更安全。这主要是因为许多安全组织将其作为部队运输工具。对于一个相对较小的船员来说，你获得了一大堆火炮火力，这使得这艘船能从较小的、专门的战斗船只手中轻松逃脱，并且在与火炮作战的系统中占据上风。它的尺寸意味着它能携带更多的极端致命武器，这也是为什么几乎很少有人在Mantis中真正死亡。

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’s versatility like that 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

IN GENERAL:

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, which 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, and 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'

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IN GENERAL:
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

| PICTURE | SPECIFICATION |
IN GENERAL:
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 marvellous 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 it's 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, not quite matching the speed or agility of the Eagle Long Range Fighter Mark ill, but coming 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.

PANTHER CLIPPER

IN GENERAL:
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.

[*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.]

PUMA SHUTTLE

IN GENERAL:
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 have likened it to 'a Panther that has lost it's butt', but even so it has proved incredibly popular in the Federation areas of space. Like all trading ships, this 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. if ifs and buts were horses, then

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beggars could ride. A bird in the hand makes a mess on the wrist. You know what I'm saying?

PYTHON

IN GENERAL:
Of all the trading ships, the Python is the most classic. A beautiful designed ship, and one that works elegance and strength together like no other ship can. 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 MKIII

IN GENERAL:
In recent years, the Saker MkIII 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 and as a result it has quickly become one of the most popular ships in the skies, rivalling even the mighty Cobra MKIII 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.

**SIDEWIN ander**

**IN GENERAL:**
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 dearer than leaves on the line get what I'm saying?*
SKEET

IN GENERAL:
The Skeet was an attempt to create a whole new look for craft. Instead of having cargo ships that were 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 this, well, 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

IN GENERAL:
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 was 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 7 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.

TIERCEL

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IN GENERAL:
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

IN GENERAL:
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. It has a very large cult following unusually, and Tiger owners congregate once a year near Diso to celebrate the joys of owning one by reading long list 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.

TRANSPORTER

IN GENERAL:
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, which is a pity because 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. This thing is built for a Fuel Scoop, and no Transporter looks complete without one. 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. OK, 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.

VIPER DEFENCE CRAFT

IN GENERAL:
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, needed some serious muscle on the joystick to get them to bank the way the police fly them. Between you can 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.

VIPER 2

IN GENERAL:
As craft have improved over the generations, the police have 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 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.

WYVERN

SPECIFICATION

HULL MASS: 35 TONNES
MASS: 183 TONNES
INTERNAL CAPACITY (NO DRIVE): 148 TONNES
RETRO THRUSTER ACCELERATION: 6 EARTH G
MAIN THRUSTER ACCELERATION: 13 EARTH G
CREW: 3
GUN MOUNTINGS: 2+F
MISSILE PYLONS: 2
ALLEGIANCE: INDEPENDENT, FEDERATION, ALLIANCE
IN GENERAL:
The Wyvern was an attempt to bring the larger trading ships and the faster multiple role craft together in one swoop, 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 round ship.

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 'jack 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.
COMMS - THE IDIOT'S GUIDE

Ye rad dudes, as they used to say Comms are the future guys! 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 now you can see the person you're dealing with. It's like meeting people face to face! 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:

GUIDE TO THE BULLETIN BOARDS

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?

WHAT CAN BE FOUND ON BBS?
Bulletin Boards exist on every colonised planet and starbase in the galaxy, and form the crux of the communication service for that area. Replacing the long outdated 'mail' system in the early 21st Century, Bulletin Boards were 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, IV 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 this bore the 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.

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?

HOW TO CONNECT
Easy Simply click on the Communication Panel (F4) on the Main Console and then choose the Bulletin Board panel (F7)

EXAMINING THE BULLETIN BOARD

MESSAGE LIST
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 that 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.

BULLETIN BOARDS - OTHER FEATURES

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 Yawing 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.

**THE BLACK MARKET**
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.

**TAXI MISSIONS**
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 telling you that they want a ship. Clicking on this button 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.

**COURIER MISSIONS**
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.

**MILITARY MISSIONS**
As mentioned below, it's always worth contacting the Military to see if they have anything on their books that can be handed out to a roving mercenary Commander.

SHIP TO SHIP COMMUNICATIONS

Ship to Ship Communications icon only take place in flight.

You use the Communication Panel on the Main Console (F4) to make contact with the pilot of any other craft within range.

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

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!

**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 north of the galaxy, with their main operations base on Earth, the home of humankind. The Empire, with it's more classical layout, 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.

**HOW TO START A CAREER**

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. As an 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.

**RANKS**

Like the Elite rating, you progress through the ranks of the military based upon the number of missions you do, and their difficulty level. 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. For your reference, here are the current ranking structures and their equivalents in each of the two forces.

<table>
<thead>
<tr>
<th>FEDERATION</th>
<th>EMPIRE</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Outsider</td>
</tr>
<tr>
<td>Private</td>
<td>Serf</td>
</tr>
</tbody>
</table>
YOUR FIRST MISSIONS
When you first start out, you will be offered the most mundane and boring missions you could possible 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 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.

1. SET DATE
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.

2. SET PRICE
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.

3. BARGAINING WITH MILITARY
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.

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

5. TOLERANCE OF DIVIDED LOYALTIES
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.
Appendix

THE PREFERENCES PAGE

To reach the Preferences page:
Click twice on the 'pause' icon of the Star-Dreamer time control OR press the ESCAPE (ESC) key twice. You will be presented with a menu of eight pages with which to configure the game to your requirements plus an option to Exit to DOS which will allow you to exit from the game entirely. (See Figure 18)
SAVING YOUR POSITION

TO SAVE your position at any point:

Enter the Preferences page (see above) Choose the SAVE option from the Preferences List

You can select the name under which you wish to save each time by clicking on the old name to highlight it, deleting it and replacing it with your new name. (See figure 19)

NOTE: It's a good idea to save under a series of Commander identities so that you can go back to a previously saved position if you find you don't like where you're heading. This becomes more important when you are up to your neck in a complex mission sequence and realise you made a serious tactical error half a week ago.
KEYBOARD SHORTCUTS

ESC
ESC
SPACE
ENTER (RETURN)
SHIFTR
TAB
 Cursor (Arrow) Keys < >
A
B
C
D
E
H
L
M
N
R
T
U
X
Z

ESC                  Pause game
ESC                  again Enter Preferences List
SPACE                Fires Lasers
ENTER (RETURN)      Fires engines to speed you up if Engines Off
SHIFTR               Increase SET speed if Engines On
TAB                  Fires retro rockets to slow you down if Engines Off
                     Decreases SET speed if Engines On
Cursor (Arrow) Keys  Hyperspace Cloud Analyser
< >                  Ship directional controls
A                    Ship Dive
B                    Energy Bomb
C                    Centre Galactic Map
D                    Mining machine launch (or camera - if given one on mission)
E                    ECM
H                    Hyperspace
L                    Text Labels On/Off
M                    Launch missiles and mines (if Battle Target selected)
N                    Navigation Computer
R                    Remote Orbital Map
T                    Target (either Navigation Target or Battle Target)
U                    Undercarriage Up/Down (cycles between the options)
X                    Escape Capsule
Z                    Ship Climb

MOUSE CONTROLS

Left Button - controls ship - up, down, left, right
Right Button - Galactic Map - rotates in z axis
Both Buttons - FIRES LASERS

JOYSTICK - USE AS FOR MOUSE

FUNCTION KEYS

The first four function keys control the four Primary Panels on the left of your F.

Clicking your mouse button on the panel OR using the appropriate function key alters the succeeding (Secondary) panels from F5 to F12

<table>
<thead>
<tr>
<th>F1</th>
<th>F2</th>
<th>F3</th>
<th>F4</th>
</tr>
</thead>
<tbody>
<tr>
<td>(View Panel)</td>
<td>(Inventory Panel)</td>
<td>(Map Panel)</td>
<td>(Communication Panel)</td>
</tr>
<tr>
<td>FS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battle to Navigation</td>
<td>Journals</td>
<td>Launch Request</td>
<td></td>
</tr>
<tr>
<td>Key</td>
<td>Description</td>
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</tr>
<tr>
<td>F6</td>
<td>Front View</td>
<td>Ship Equipment</td>
<td>Orbital Map</td>
</tr>
<tr>
<td>F7</td>
<td>Back View</td>
<td>Commander Profile</td>
<td>Data Screen</td>
</tr>
<tr>
<td>F8</td>
<td>Turret View</td>
<td>Crew Roster</td>
<td>Galactic View</td>
</tr>
<tr>
<td>F9</td>
<td>External View</td>
<td>Passenger Roster</td>
<td>Economy</td>
</tr>
<tr>
<td>F10</td>
<td>Missile View</td>
<td>Cargo on Board</td>
<td>Social Structure</td>
</tr>
<tr>
<td>F11</td>
<td>Combat Computer</td>
<td>Outstanding-Contracts Zoom Out</td>
<td></td>
</tr>
<tr>
<td>F12</td>
<td>Escape Capsule</td>
<td>Mining installations</td>
<td>Zoom Out</td>
</tr>
</tbody>
</table>
WISHES TO THANK THE FOLLOWING FOR:

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

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Music: 'Quality Quartet', Amsterdam, Dave Lowe

Sound Driver: mike Edie

Intro Sequence: Aggy Finn


Short Stories: julian Flood, S.L.A.M., jude Jones, Martyn Taylor, Moira Sheehan, Kathy Braben, Manda Scott

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"First Encounters" is the sequel to "Frontier"
the UK's best selling home computer game of 1993

"Frontier" in turn was the sequel to the best seller "Elite' (by David Braben and Ian Bell), released in 1984

[First Encounters © David Braben 1995]
[Frontier © David Braben 1993]
[Elite © David Braben and Ian Bell 1984]

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