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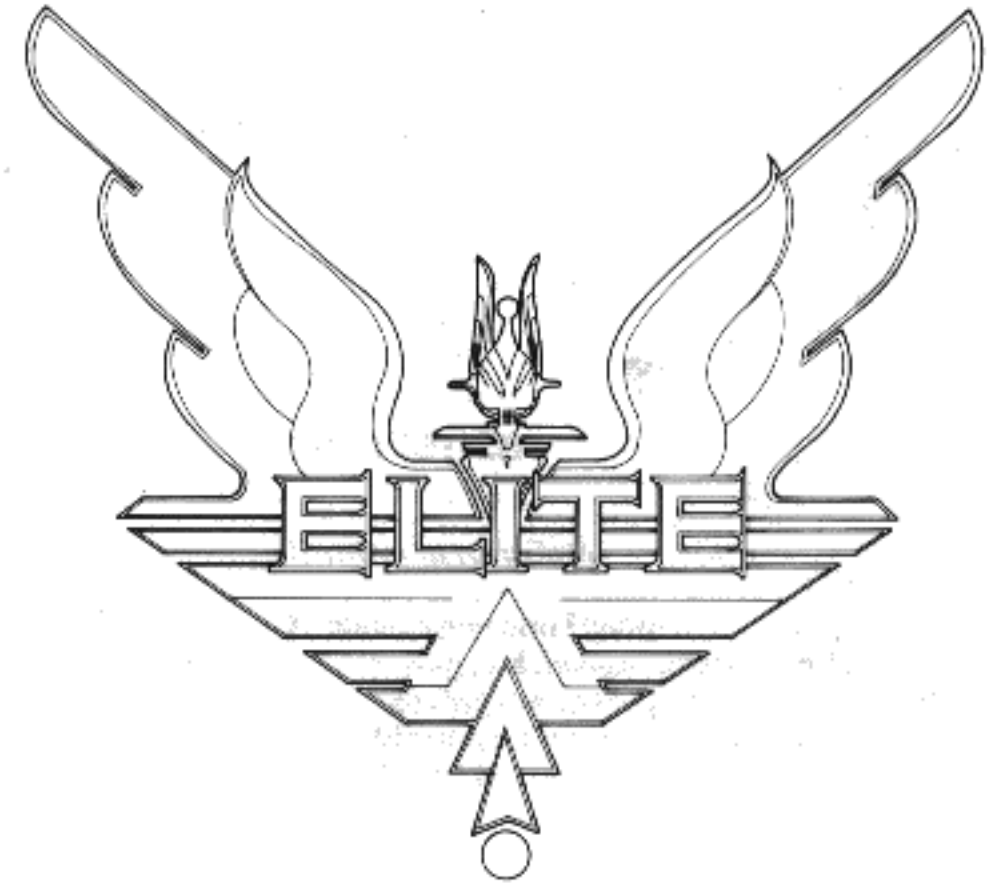
Acorn Computers Limited, Fulbourn Road,
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Space Trader's Flight Training Manual

ACORNSOFT



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FIRST EDITION

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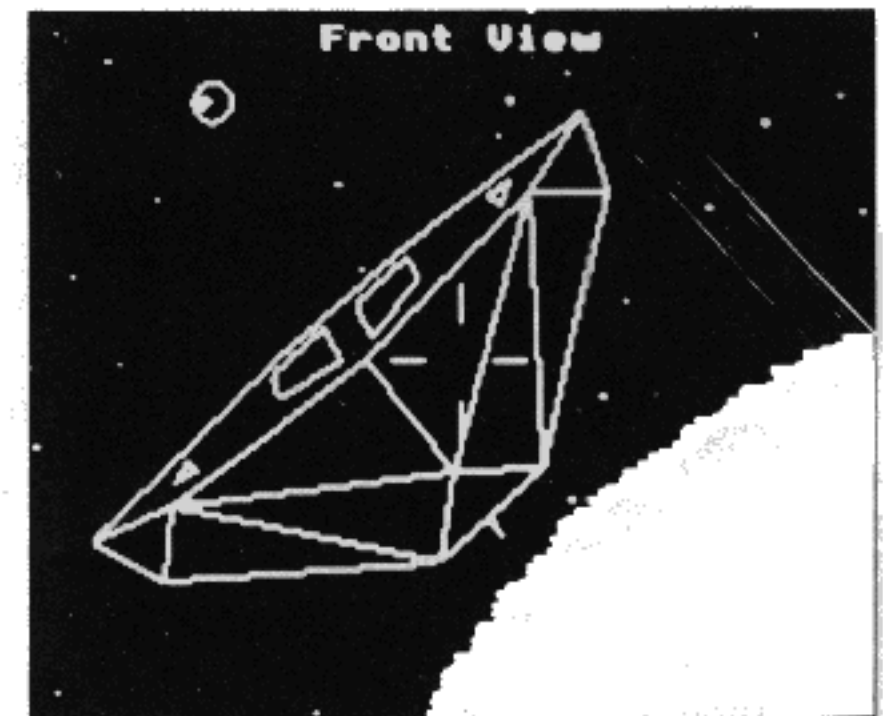
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Introductory Data

Welcome aboard this Cobra Mk III trading and combat craft. The ship has been supplied to you by Falcon deLacy Spaceways, by arrangement with the Galactic Co-operative of Worlds whose Space and Interstellar Pilot's Exams you have just successfully completed. The small flight manual supplied with the craft is designed to familiarise you with all aspects of space flight, combat and trading, and we hope that it will be of use to you.

The Cobra Mk III incorporates Zieman Deflection Shields, fore and aft, 4 hull mountings for Ingram 'rapid-fire' pulse lasers, a Lance & Ferman 'seek & kill' missile system, a Holodirect & ThruSpace GravDistort communications system, and provision for a cargo bay extension.



You begin your career, your ship equipped with a single forward-firing pulse laser, three homing missiles, 7 light years of fuel, and the sum of 100 Credits (CR), ready to embark from a space station in orbit around the planet Lave.

The Cobra Mk III is the best of the medium-range, medium capacity fighter-traders, and is an ideal ship for new traders intent on building their fortunes, or new combateers who will constantly need to finance the cost of both armaments and non-combatative equipment.

The ship is highly manoeuvrable, has a good C-holding factor during hyperspace transit, can hold sufficient Quirium H-fuel for a 7-light-year single jump and has full AutoTrading Systems Link for use at space stations. Further, it is protected by dual Zieman Energy Deflection Shields, powered by four energy banks, and has a powerful, rapid-fire pulse laser mounted on the forward hull segment. Flight controls are elegant and simple, and the bridge is equipped with both HoloDirect and ThruSpace GravDistort communications systems. Its life support functions are varied and flexible to ensure maximum comfort during trading or hunting operations.

Pilot licences are issued only at the planet Lave, and it is likely, therefore, that you are now docked at a Coriolis station in orbit around that particular world. Lave is a rich, agricultural dictatorship, but is a reasonably safe world at which to begin your endeavours. GalCop and the Lave Authorities allow practice docking and departure runs to all their space stations here, and you would be advised to take advantage of this facility.

INTERIOR OF A COBRA MK III

The Cobra is essentially a single-pilot trade-ship, but has been designed to support a second person, provided that person is of ordinary human or humanoid dimensions and physiology. The ship itself consists of five main areas:

The cargo hold fills the bulk of the mid-space area, and the cargo bay doors open downwards. The capacity in an unmodified Cobra is 20 1-tonne canisters. Extra cargo space may be acquired by extending the cargo bay, which does not affect manoeuvrability. Tonne canisters (TC) attach magnetically to the cargo arms within the bay, and two AutoShuttles occupy the central space.



A view of the bridge of a Cobra Mk III clearly showing scanner screen, astrogation console and main systems monitor.

The bridge has seats for pilot and co-pilot, a MedStim Centre, entrance to the escape pod, descent well to living quarters, communications console, special suit locker, RemLock supply case, attachment facilities for AutoDock System and a hand-weapons locker. The main wall is occupied by the scanner screen, astrogation console and main systems monitors.

The drive sector houses the directional thrusts, the System Space Kruger 'lightfast' motors, and the Irrikon Thru-Space drives. Also here are the rear laser housings, the ECM capsule, the Zieman shield generators, and energy banks, and the Witch-Space fuel condensers (Quirium). There are both internal and external access panels. Radiation level is high.

The living and hygiene section is below the main bridge, and reached through a descending gravity well. Two bunks, food dispensing facilities, waste disposal (including high-tox copper exudate for Aonians), SynPleasure relaxapads, and videos.

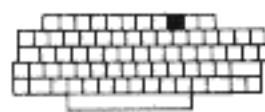
The equipment level runs throughout the ship, and houses all energy banks for lasers, plus the missile rests, with dispatch shafts to the lower hull. The communications centre is here, and the escape pod (with a separate entrance from the bridge) life support systems, cryogen tanks (two) and forty cubic metres of FacsEnvironment for emergency use.

THE STATUS PAGE

```

COMMANDER JAMESON
Present System      :Lave
Hyperspace System  :Lave
Condition          :Docked
Fuel:17.8 Light Years
Cash: 100.0 Cr
Legal Status: Clean
Rating: Harmless
EQUIPMENT:
Front Pulse Laser
    
```

A new pilot's rating is 'harmless'; his legal status, 'clean'



f8 The status page is always retrievable by pressing f8.

Commander Jameson's rating is 'dangerous', which is not surprising when you consider the equipment and cash he has managed to amass. In fact, as his status suggests, this has not been achieved without sailing quite close to the wind.

```

COMMANDER JAMESON
Present System      :Diso
Hyperspace System  :Leesti
Condition          :Green
Fuel:3.4 Light Years
Cash: 7433.3 Cr
Legal Status: Fugitive
Rating: Dangerous
EQUIPMENT:
Large Cargo Bay
Fuel Scoops
E.C.M. System
Energy Bomb
Docking Computers
Galactic Hyperspace
Front Beam Laser
Rear Pulse Laser
Left Pulse Laser
Right Pulse Laser
    
```

There are four possible 'Conditions': DOCKED means that you are docked in a space station at the Present System; GREEN means that there is no immediate danger; YELLOW indicates enemy ships in the vicinity; Condition RED signals a high-risk on-going death-type combat situation.

'Legal Status' refers to your Galactic Police record. If this is CLEAN you have nothing to worry about, but as an OFFENDER or, still worse, a FUGITIVE you are likely to be attacked by police ships.

The 'Rating' is a dispassionate assessment of your performance in combat so far.

Current cash and fuel are also displayed, along with a list of ship fittings.

YOUR RATING AS A COMBATEER

To become an elite combateer requires great skill and great patience, because expert trading is essential before the necessary more powerful armaments and equipment available to the Cobra ship can be bought: beam lasers, more missiles, energy bombs, a docking computer, galactic hyperdrive, etc.

As you sail through space between the stars, and as you trade, you will *live* with your combat rating. You will begin as HARMLESS. If you survive your first skirmish you may be reclassified as MOSTLY HARMLESS. But on the slow climb to a status level that reflects a growing talent for combat you will have to engage many different ships, in many different skirmishes, in the System Space of many different worlds. You will be classified as POOR, then AVERAGE, then ABOVE AVERAGE, then COMPETENT. Then you will become DANGEROUS, then DEADLY. And at last, a few will become ELITE.

Your kills are photographed and transmitted by TS ComDirect to the nearest GalCop Federal Law Centre. Your rating as a combateer will increase in direct proportion.

Fly your Cobra craft wisely and carefully. Remember: other pilots may be attempting to increase their own combat rating by attacking either innocent traders, or police Vipers (the ships of the GalCop Police Force). If you resort to such tactics (or if you adopt the fast-credit routine and trade in illegal goods) then your combat rating may rise, but your legal status: CLEAN → OFFENDER → FUGITIVE, will make you Public Enemy Number One with the Federation Crime Monitoring Authority and you will not be left alone.

Key Function

Status

f8 Status page originally accessed by space bar, always recalled by f8



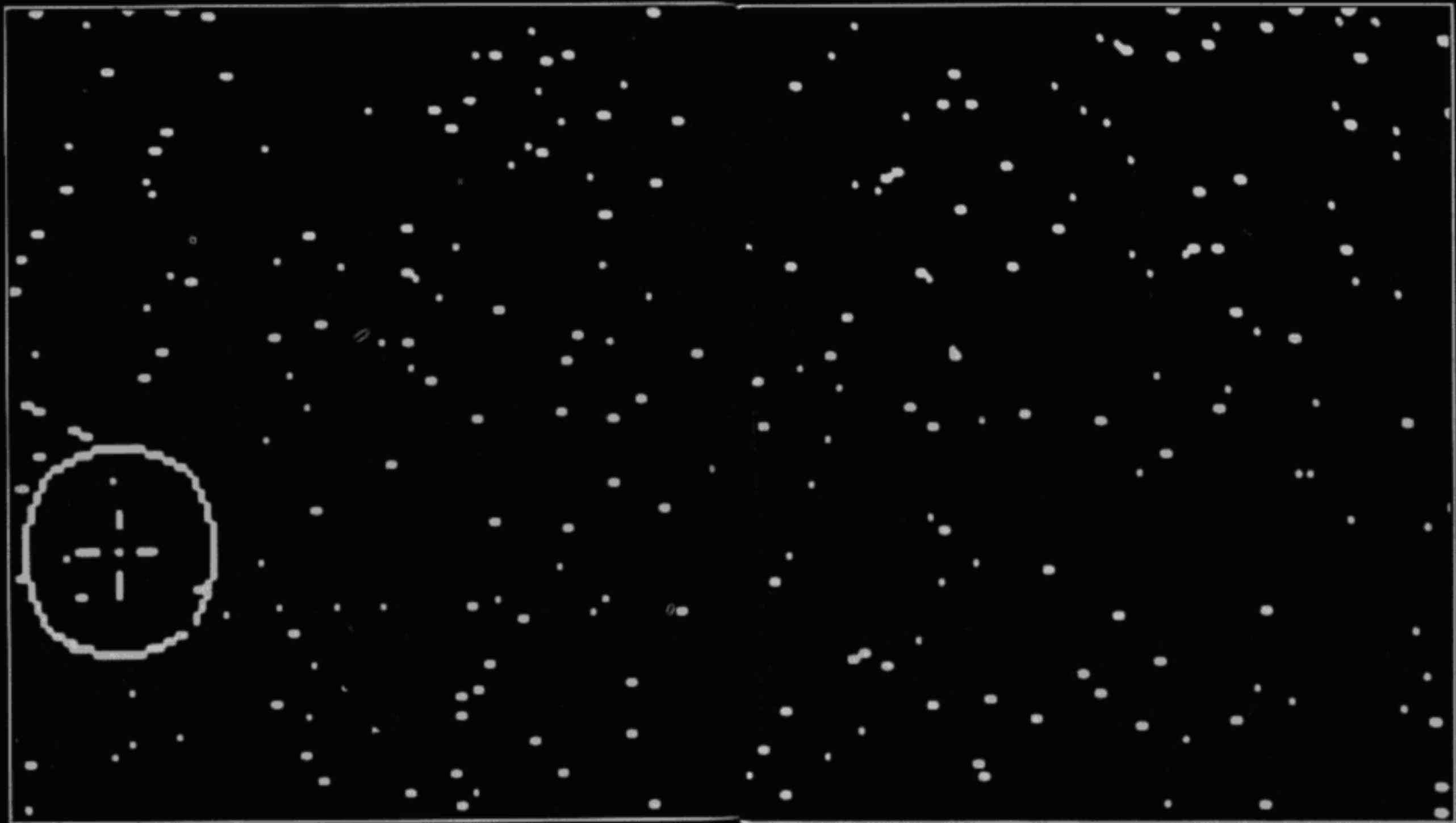
Navigation and Flying

Navigation

The Galactic Co-operative is only one – although the largest – of several planetary federations, and maintains trade and diplomatic links with over 2000 planets spread throughout 8 galaxies. The political profile of a planet is an important navigational consideration as many are in a state of anarchy and are unsafe to visit in poorly equipped ships. Important too is its economic profile, as will be discussed in the section about trading.

Navigational strategy depends of course upon your aims in life. If you think you have what it takes to become elite, you will need to chart your path through the galaxies with care and great precision. You will wish to equip your ship as fully and as early as possible. You will, therefore, need to study the trading section of this manual so that you can work out a profitable trading route in order to be able to afford the weaponry you will require. You will have to make decisions about how dangerous a life you wish to lead; in general, the more risks you take (travelling to dangerous planets or trading in contraband goods), the faster you may equip your ship but the quicker you will be killed. You will discover that life in the 8 galaxies is a question of fine balance. Although it may seem, at first, that indiscriminate carnage is a soft option (kills improve your rating, after all), as your skills and experience of living in space mature, you will quickly discover that piracy is a short-lived career.

Success in this context is a mosaic of talents: combative, certainly, but thinking and decision-making talents too.



There are 8 galaxies (of which this is one), and over 250 recognised planets in each galaxy. So massive a universe contains very little that is completely predictable, and offers infinite opportunities for adventure.

Here you are introduced to all the controls which will eventually be useful to you in developing a route through the 8 galaxies.

NAVIGATIONAL CONTROLS

It is important that you do not press the f0 key for the moment

Galactic chart. This chart shows all registered worlds within the galaxy, and indicates your own coordinate position. The star cursor may be used to scan the shown worlds for potentially favourable trade sites.

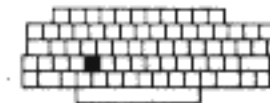
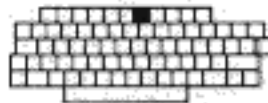
Use the joystick or the cursor control keys to move the small cross over to one of the dots, and hit f6.

Worldata link. The Orbit Space Authority takes no responsibility for the accuracy of the information registered here, but the trader may gain some idea of the relative wisdom of trading with the world whose data is displayed. The information shown is distance, type of main life form, degree of agricultural or industrial development, with industrial and technological level displayed on a scale of 1-12. The government type, ranging from Corporate State to Anarchy, will be a strong indication of the danger of trading with the system.

f4



f6



Use f4 again to return to the chart and acquire information about some more planets.

The larger of the crosses on the chart shows where your ship is and the circle shows how far it can jump with its current hyperspace fuel.

- O O returns the small cross to the larger one.
- f5 **Local navigational chart.** This is a high power chart of all planets in the immediate vicinity of your docking world. Since the Cobra ship has a maximum single H-jump range of 7 light years, the target world must be chosen carefully. The target cursor, used in conjunction with the Worldata link, will indicate dangerous or likely worlds for trade.
- D If the cross moves off the screen, use the O key to bring it back. Notice also that the D key will tell you how far away the system nearest the small cross is.

Key Functions

Navigation

- f4 Galactic chart
- f5 Local chart
- D Distance to system
- O Retrieve cursor cross
- ← Cross-sight cursor for local and galactic systems
- ↑ ↓
- f6 Data on system

f6 invokes a planetary status card. Whether you choose to amass kills by bounty hunting or take the less dangerous course of the traditional trader and defensive combateer, the political and economic infrastructure of planets should influence the route you take through a galaxy (see Interplanetary Travel and Trade).

DATA ON REORTE

Distance: 4.4 Light Years

Economy: Poor Agricultural

Government: Dictatorship

Tech. Level: 6

Population: 3.1 Billion
(Black Fat Felines)

Gross Productivity: 5288 M CR

Average Radius: 6419 km

A CORIOLIS SPACE STATION

Every world registered with the Galactic Co-operative has several Coriolis space stations in orbit at various altitudes. Coriolis stations are 'neutral' territory, controlled equally by GalCop and the Planetary Government.

A new dodecahedral design (the so-called 'Dodo' stations*) is replacing the Coriolis design in the more advanced systems. Coriolis stations are hexagonal in approximate shape. They spin along a single axis running vertically from the planet below. One side of the station always faces the planet, and it is on this facet that the access tunnel is located.

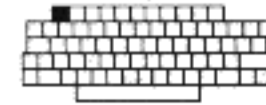
Coriolis stations were designed at the GASEC (Galactic Astronautic and Space

Exploration Centre) Laboratories on the planet Vetitice. The first station was in orbit around the world Lave in 2752.

Coriolis stations have powerful defensive shields (against pirate attack and inept docking) and a large fleet of Viper fighters, and several larger types of ship. The inside of the station is free-space, and on each inner facet of the station there are berthing and refuelling facilities, as well as cities, hospitals, farmlands and leisure-scapes.

Each Coriolis station has a diameter of 1 standard kilometre. They can berth 2000 ships, and support a fair-sized colonial life development of humanoids.

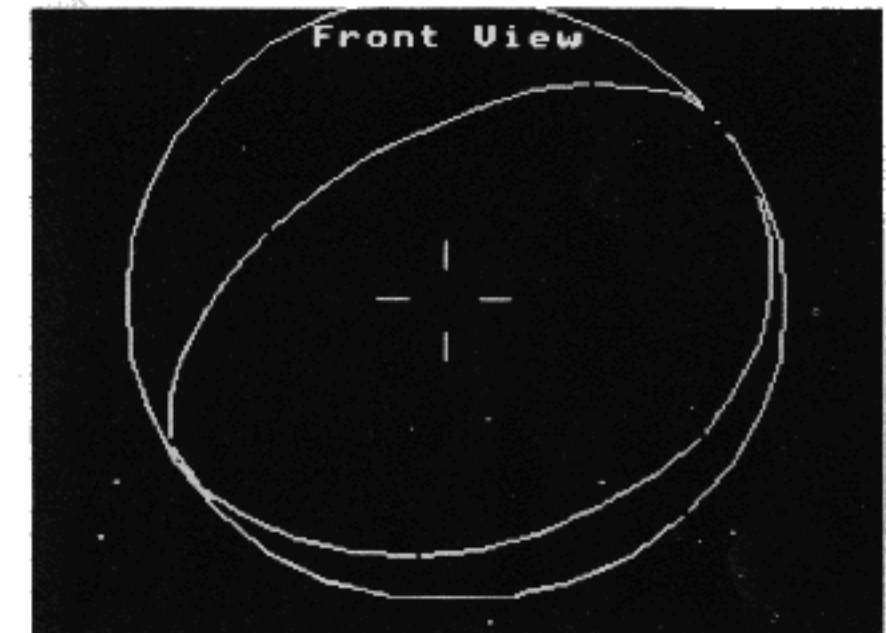
Space stations are cargo transition points for interplanetary trading vessels and shuttle craft. They also provide entertainment and lodging facilities for pilots not wishing to go 'planet-side'.



Leaving a Coriolis station and approaching the planet, Lave.

LEAVING THE SPACE STATION

f0 On coding for Station Depart the pilot is advised to accept a 10-second MemnSomn to dispense with subjective experience of the passage from docking bay to Coriolis station egress. The screen will then show a break-pattern, which is the passage through the protective field over the Coriolis entrance tunnel.



Basic manoeuvres

The Cobra trade ship needs practice to fly well, though it is highly manoeuvrable, very fast, and a good combat vessel. It accelerates and decelerates rapidly using fingertip control:

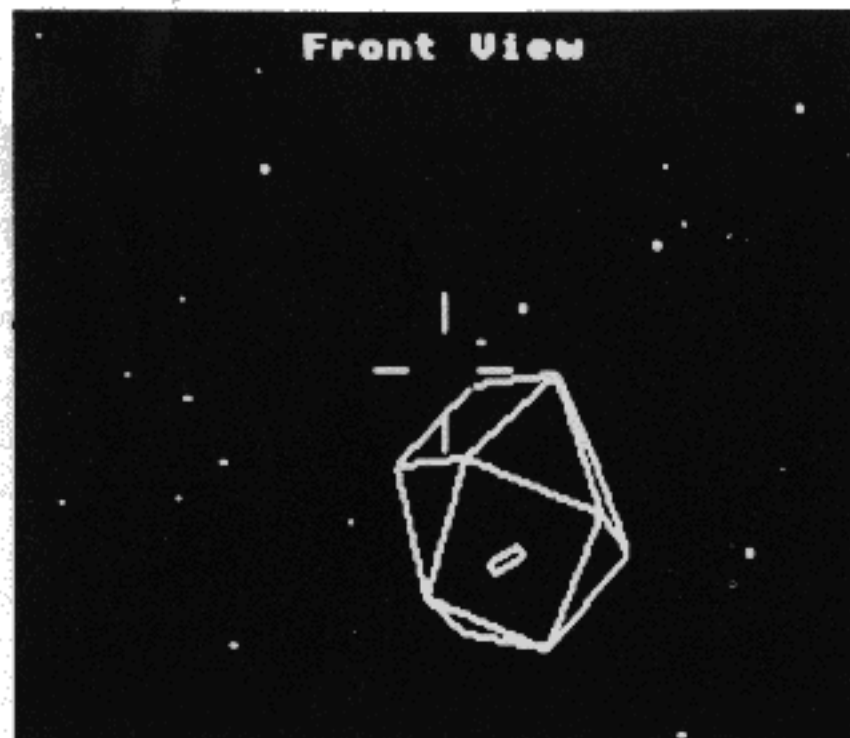
- ◀ (or joystick left) for anticlockwise roll
- ▶ (or joystick right) for clockwise roll

- X (or joystick back) for climb
- S (or joystick forward) for dive

- SPACE to increase
- ? to decrease your speed

Pitch and yaw manoeuvre requires bi-digital play on keyboard model (X,S,◀,▶).

Notice the small dot moving around inside the large circle on the dials (just above the large 'S'). This is your compass; the dot corresponds to the position of the



space station. If the dot is green then the station is behind you. When the dot is yellow and in the centre of the circle, you should be able to see the space station directly in front of you.



Looking back at the Coriolis station where your Cobra was berthed.

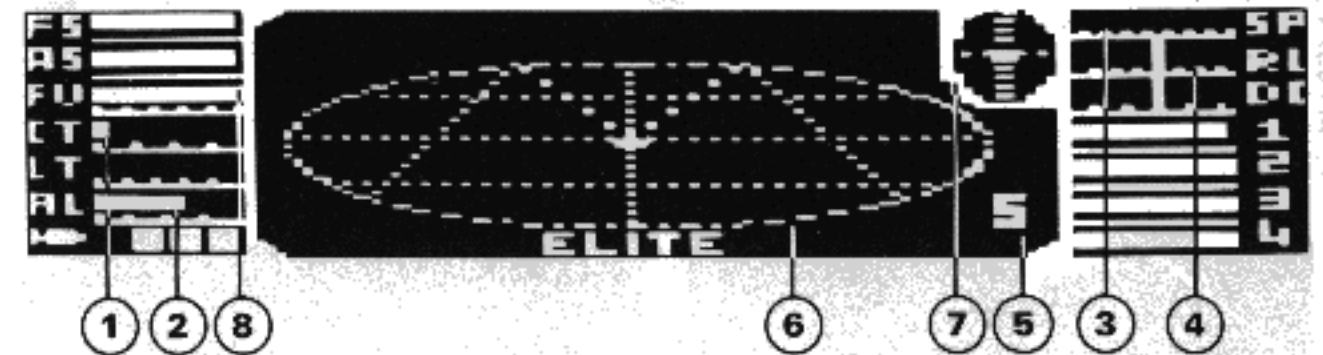
Practise rotating the space station off the screen and using the compass to find it again.

You might see some Cobra Class ships. These are other traders like yourself, and will not harm you unless you shoot at them. If you do this they will either attack or, alternatively, run away. Should you use them for combat practice, do not expect the space station to turn a blind eye to such unruly behaviour. Nothing will attack you while you are within sight of the space station – unless you make a nuisance of yourself.

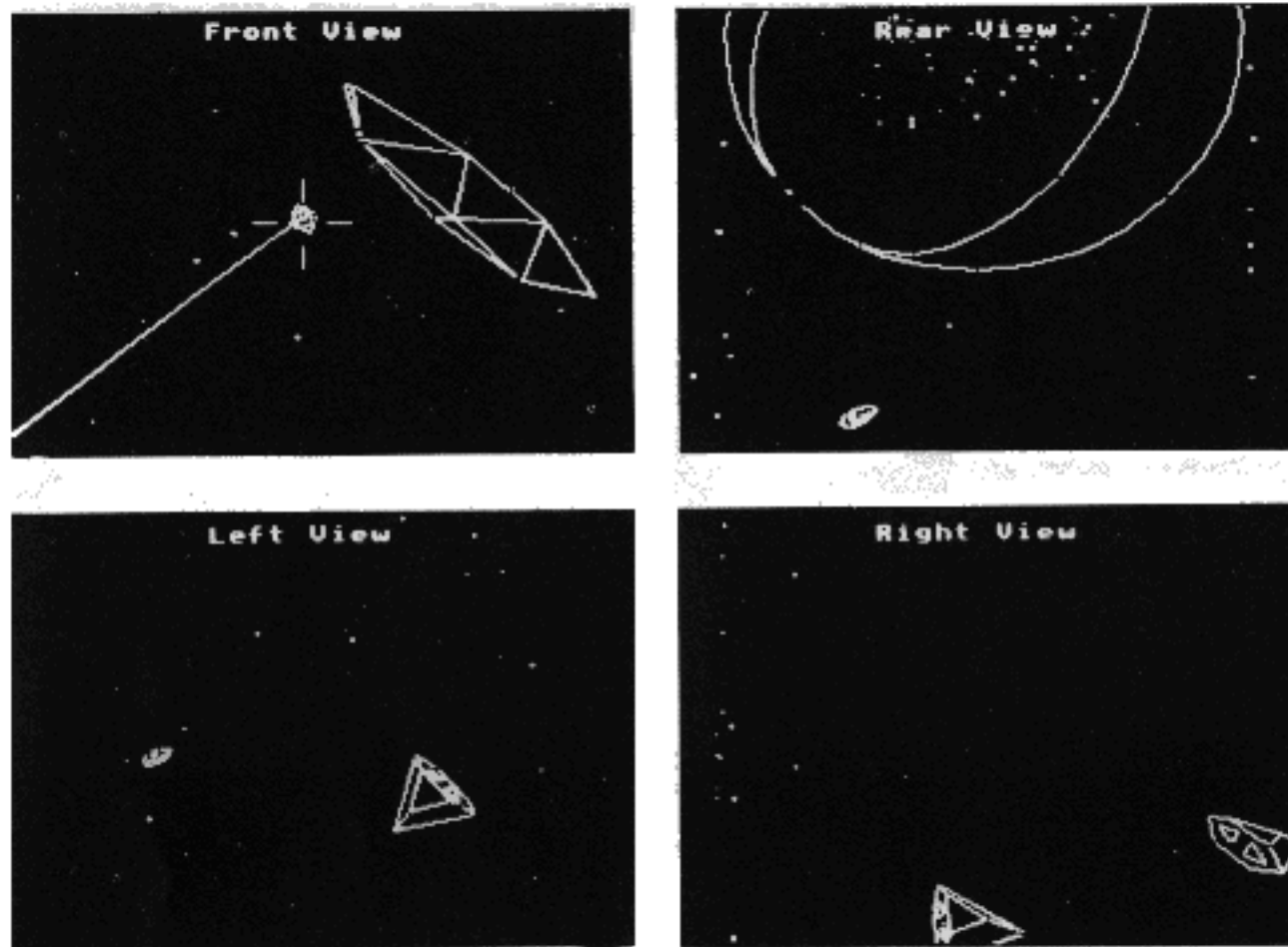
It is not possible to land on the planet, and flying into planets or space stations is fatal. The altimeter shows your height above the planet's surface, and you should not let it fall too low.

(If you are a new pilot, now is your best chance to practise docking manoeuvres with the space station at Lave. The Lave Orbit Space Authority permits an unlimited number of practice runs by newly appointed pilots, and does not charge. This facility is suspended during attack, or when the Coriolis station has no free docking space. See the illustrated section on docking procedure.)

CONSOLE READINGS



- 1** Cabin temperature will increase and the console register this when your ship flies too close to a sun.
- 2** Altimeter. Your altitude above your destination planet can be crucial. Flying too near its surface will be fatal.
- 3** Forward velocity should be maintained at maximum on planetary approach. Keep it low during space station approach, and minimal for final docking.
- 4** Gyro orient bar indicators show right/left roll and dive/climb status.
- 5** S refers to the space station and indicates that you are on target for it and within its protective range.
- 6** Flight grid scanner. This sophisticated instrument displays a three-dimensional view of space in the immediate vicinity of your ship, seen from a point behind and above it. The precise position of any ship within its range can be pinpointed.
- 7** Compass. This instrument first picks up a target planet while it remains out of range of the main flight-path scanner. When the planet's space station nearest to you comes within range of it, the compass picks up that instead. When the dot is small and green, the object is behind you; when yellow and in the centre of the compass circle, it should be visible through your front viewfinder.
- 8** Fuel level.



Once you have left a space station, the controls f0, f1, f2, and f3 change their function to produce front, rear, left and right views respectively.

MAKING FOR YOUR TARGET WORLD

Hyperspace and related controls

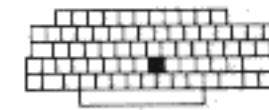
Having left the space station you will be in low orbit above the planet Lave, moving at low velocity. Decrease your velocity to absolute minimum before coding the astrogation console for Hyperspace Jump.

f0, f1, f2, f3 During space flight only, f0, f1, f2 and f3 provide access to views all around your ship.



H Use f4 or f5 to display a chart (galactic or local, respectively), and move the smaller cross to choose a larger planet, press f0, then hit H. After a short delay, the hyperjump motors will engage.

On arrival in a new planetary system, after transit from hyperspace, you will find yourself at some distance from your target world. This conforms with GC Flight Law.



J Even in the safest systems there can be unseen dangers, and you will be well advised to approach orbit space, and the safety of the space station, as quickly as possible. Increase forward velocity to maximum. At this point you can take full advantage of the space-skip facility (J). Inter-space jumping does not function (because of interference patterns) if there is another ship, a planet or a sun in the immediate vicinity. If this is the case, a sound signal will occur.

Soon your ship's computer will pick up the beacon signals of the nearest orbital space station and will re-engage the compass to track that instead of the target planet. Once the Cobra is within scanning and protective range of the Coriolis station, the flight-grid scanner will begin to track it. Its own defenses are now available for your protection. The scan console will register the letter 'S' as long as the space station is within range.

Hyperdrive across galaxies

The intergalactic hyperdrive is expensive and can be obtained only from planets at Tech level 10 or higher. It can only be used once, and will take you to a system in a whole new galaxy (i.e. a new f4 map). There are 8 such galaxies and making 8 jumps will return you to your starting galaxy. The Inter-Galactic Hyperdrive is engaged by pressing CTRL and H simultaneously.



CTRL H

DOCKING PROCEDURE

Docking with a Coriolis space station is never easy, unless the ship is equipped with an automatic docking computer (in which case C will activate it). The Navy Training Manual recommends the following approach and dock sequence.

Locate the Coriolis station and approach it. The entrance tunnels to all these stations face the mother planet. Fly near to the station and then on towards the planet (monitoring altitude carefully). By turning a half circle you will now find your ship orientated towards the entrance.

Approach the final moments of docking at DEAD SLOW SPEED. Failure to dock cleanly can be fatal but may simply result in your scraping the sides of the aperture, with consequent loss of defensive shield(s) and quite possibly your cargo. Manually control the Cobra's roll motion to match the rotation of the Coriolis station (see illustration). The entry port must be as nearly horizontal as possible.

If docking is successful; the protective field across the station entrance is penetrated, and a break pattern appears on the screen. Berthing is handled automatically.

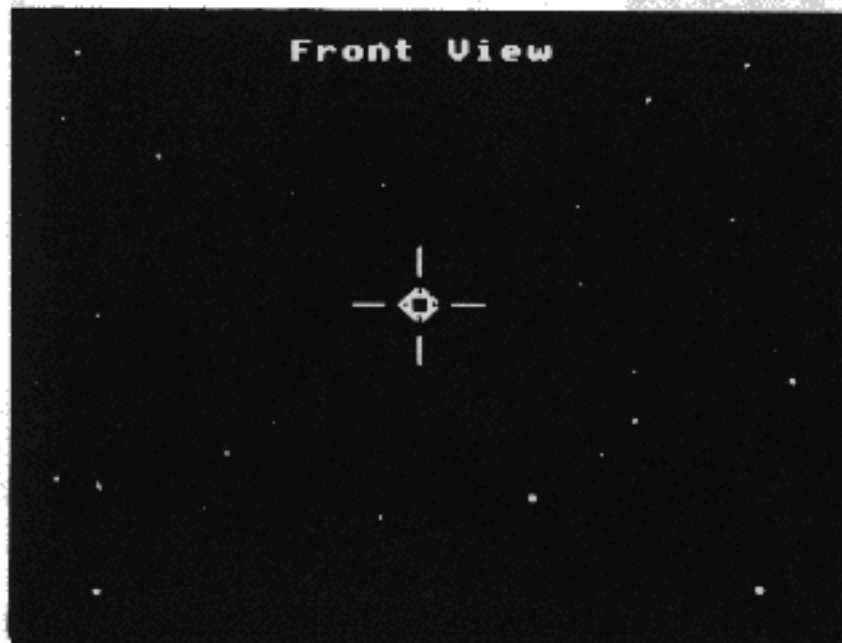
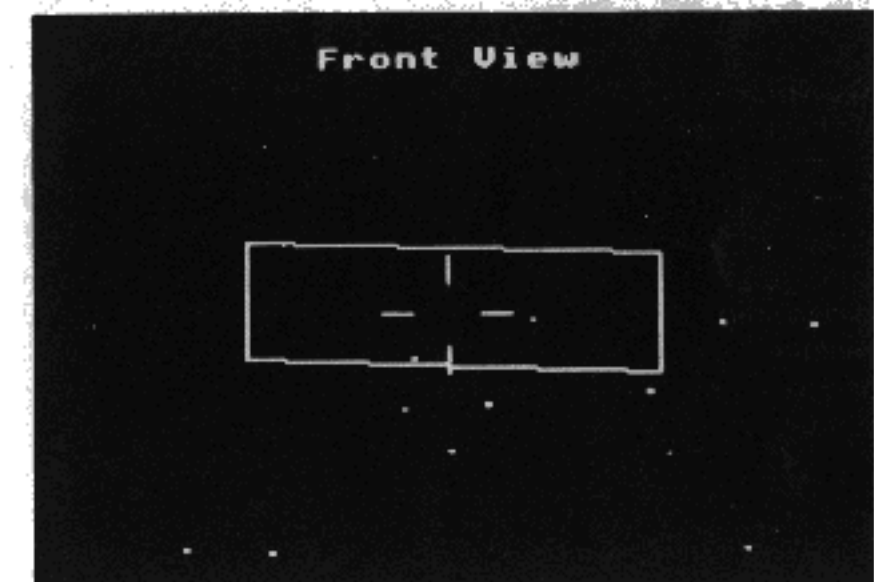
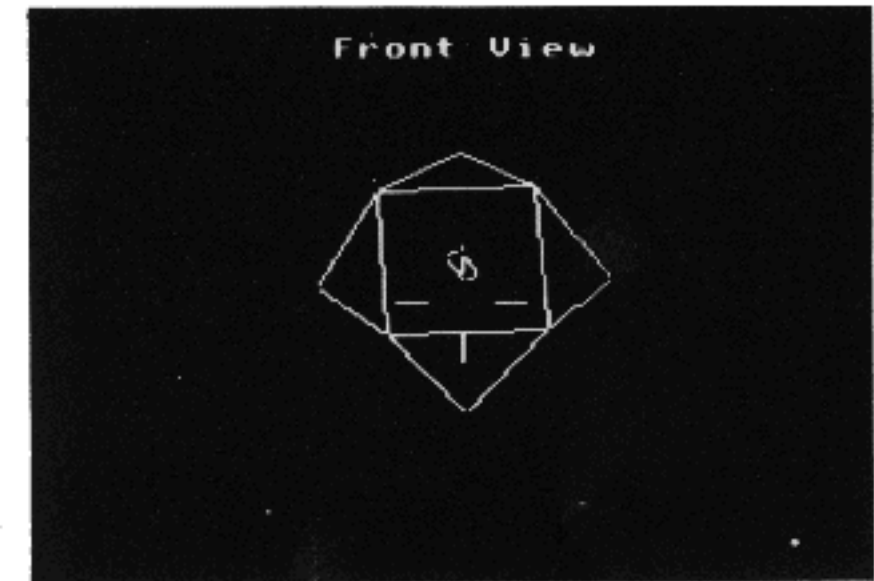
Docking protocol, and Orbit Space Regulations, are numerous, and are available in the *GC Orbit and System Space Code*, published by *Federation Planet Bureau*.

DOCKING PROCEDURE
Practise docking before hyperspacing to your target world by re-entering a Lave station.

Accelerate towards Lave, then slow down, stop and loop over to face the station.

Set the station in your sights, and make your approach slow and in the final moments dead slow. When just outside the station egress, 'correct' the gyration of your ship by manipulating the left/right roll controls (o) until the entrance tunnel appears horizontal.

Provided velocity is low, even if you scrape the sides of the tunnel, you will survive, though possibly at the expense of some of your defensive shields.



Key Functions

Interplanetary Travel

N.B. These keys revert to their usual functions when ship is docked

- f0 Front view
- f1 Back view
- f2 Left view
- f3 Right view

Key Functions

Flying

- f0 Launch
- SPACE Increase velocity
- J Space skip
- ? Decrease velocity
- < Counterclockwise roll
- > Clockwise roll
- S Dive
- X Climb
- H Hyperspace
- CTRL+H Inter-galactic hyperdrive
- C Docking computer on
- P Docking computer off*

Interplanetary Travel

In-Flight Combat

COMBAT PROTOCOL

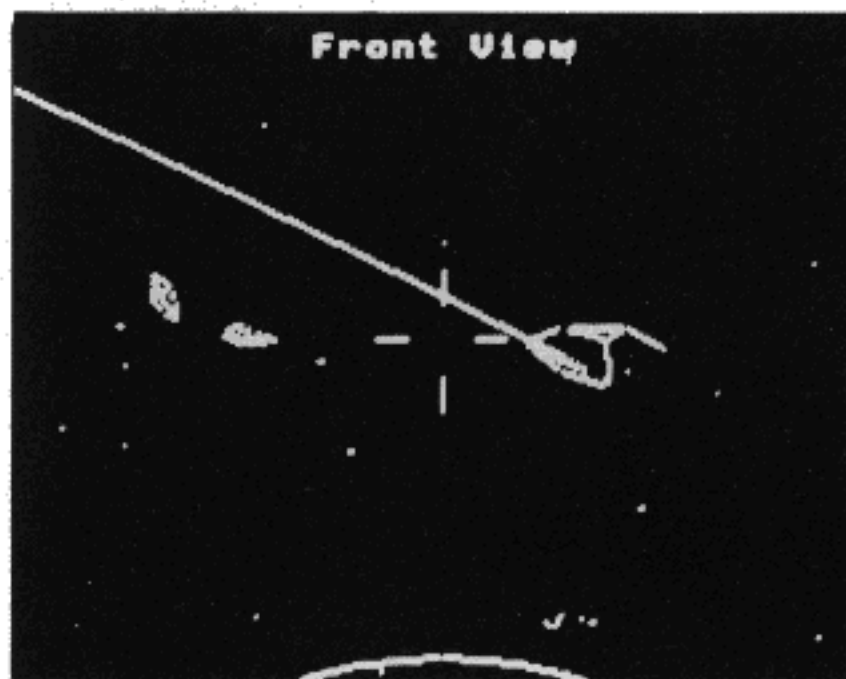
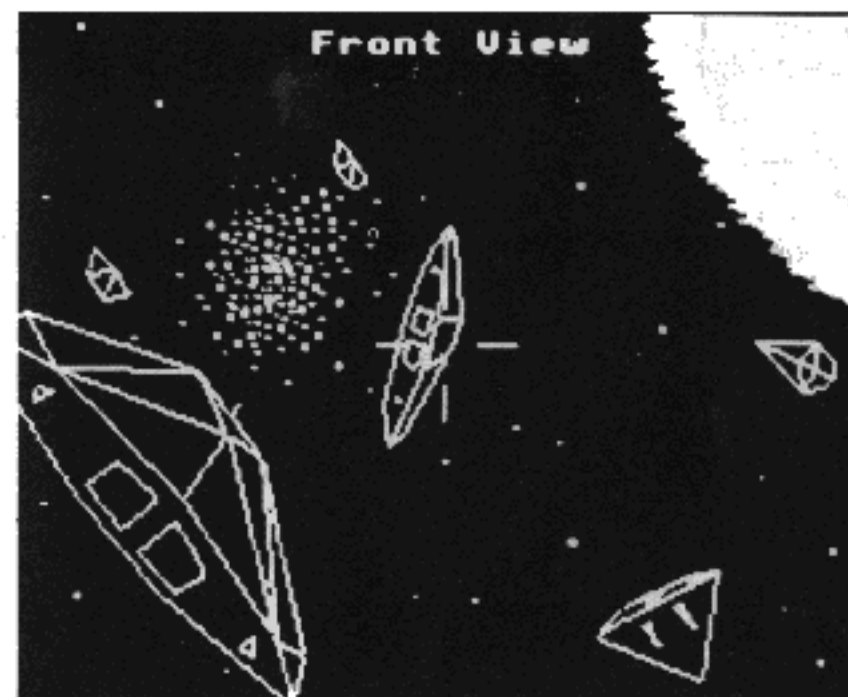
Not all ships in deep space, even small fighters, are pirates. Most ships will respond to hostile action with hostile action. If you attack a police ship or trade in contraband goods (see Trading), your legal status will be changed to OFFENDER, or even higher. If you destroy pirate ships, or Thargoid invaders, (or asteroids) you will receive a bounty payment. If you shoot at the Coriolis space station, its own defensive ships (Viper class fighters) will attack you.



You must be prepared to outwit your enemies tactically. Speed of reaction will not in itself always be enough.

MANOEUVRING

The Cobra tradeship is fast, and has a very tight turning circle (though less tight at full speed); it is an ideal combat ship against small packs of enemy vessels. It will outrun many attack craft by speed alone, but it will not outrun a missile. Spinning, fast-slow, and duck-and-weave manoeuvres are very effective against the larger, less manoeuvrable ships when they attack. A sudden decrease in speed followed by a tight 180° turn and an increase in velocity will often give you a big advantage over pursuing enemy craft.



SIGNS OF DANGER

If you cannot make an interspace quick jump J towards the planet, there is a ship in the vicinity. It could be dangerous.

If the status screen, during flight, shows YELLOW or RED, prepare to engage in combat.

Flashing streaks on any screen mean laser fire is coming in.

Laser fire striking the defensive shields makes a light screeching sound. Listen for laser fire striking the hull direct. Through damaged screens it makes a low, screeching sound. DANGER.

An incoming missile will be detected, tracked, and a warning message flashed on main screen.

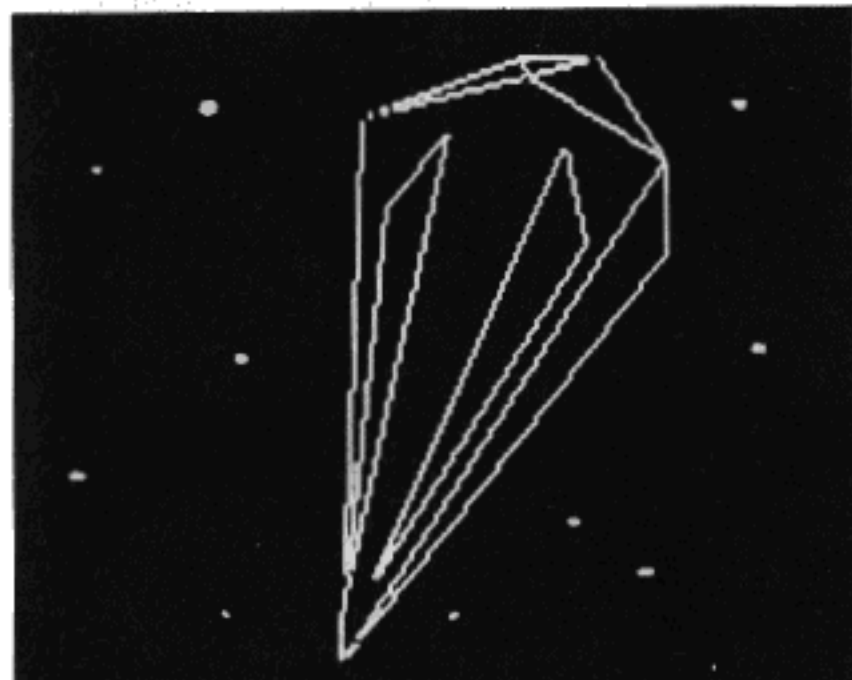
Some star pilots are braver than others and pirate ships may break off and run in the face of stiff resistance. Some appear to know no fear – in particular Thargold vessels, whose captains have had their fear glands surgically removed.

LIKELY ENEMIES

Lone-wolf traders – such as Cobra pilots – are constantly at risk from other Spacefaring types. An understanding of other loners, packhunters, and bounty killers is essential.

Bounty hunters

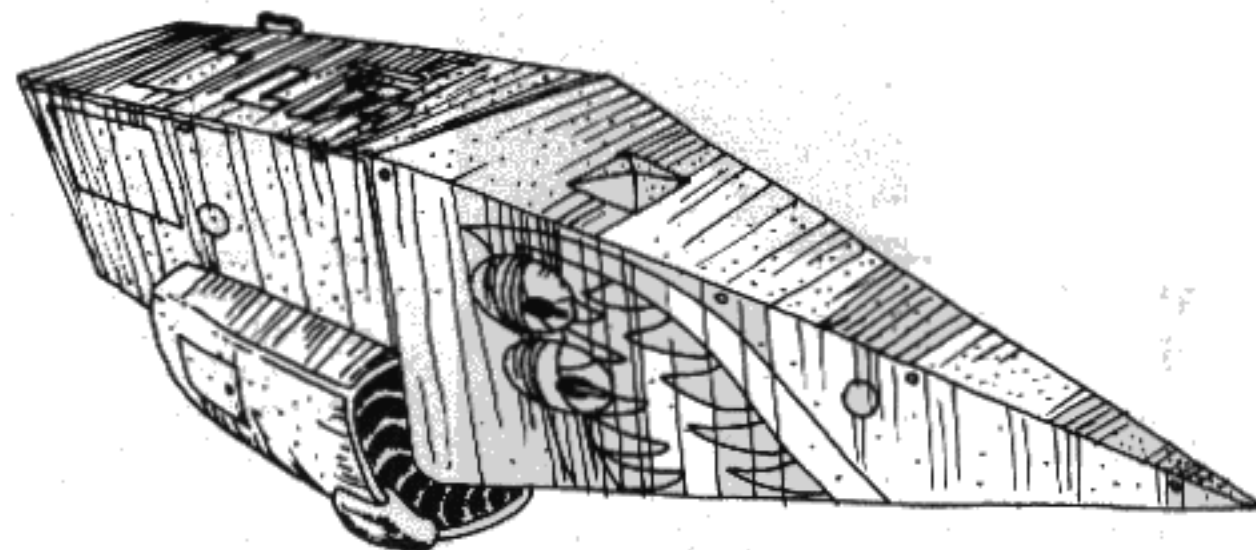
Unless you have achieved FUGITIVE status, and especially if you are highly ranked as a combateer as well as being a criminal, bounty hunters will not bother a ship as insignificant as a Cobra Mk 3. In fact, many bounty hunters favour Cobra trade-ships as they make an excellent disguise. But the real killers star-ride in the sleek, and highly efficient, Fer-de-Lance Lightspeeder, in which they live for months at a time. Bounty hunters can always be found outside Orbit Space, especially around worlds classified as 'dangerous'. They are invariably of combat rating: DEADLY or ELITE. Bounty hunters rarely identify themselves to passing ships, and if pestered too closely will usually kill.



A Zorgan Petterson Group (Zee Pee Gee) designed vessel, favoured by well-heeled bounty hunters and freewheeling business corporations, the Fer-de-lance* is a sophisticated craft capable of trading, combat, and leisure function.

Pirate vessels

There are several ways of identifying a space-going ship as 'pirate occupied', and this is essential since pirates and renegades will take any ship for their purpose, from a Worm to a massive Python. Pirates exist everywhere in the galaxy, but cluster mainly around unstable GalCop worlds, especially worlds run on a feudal or anarchic system.

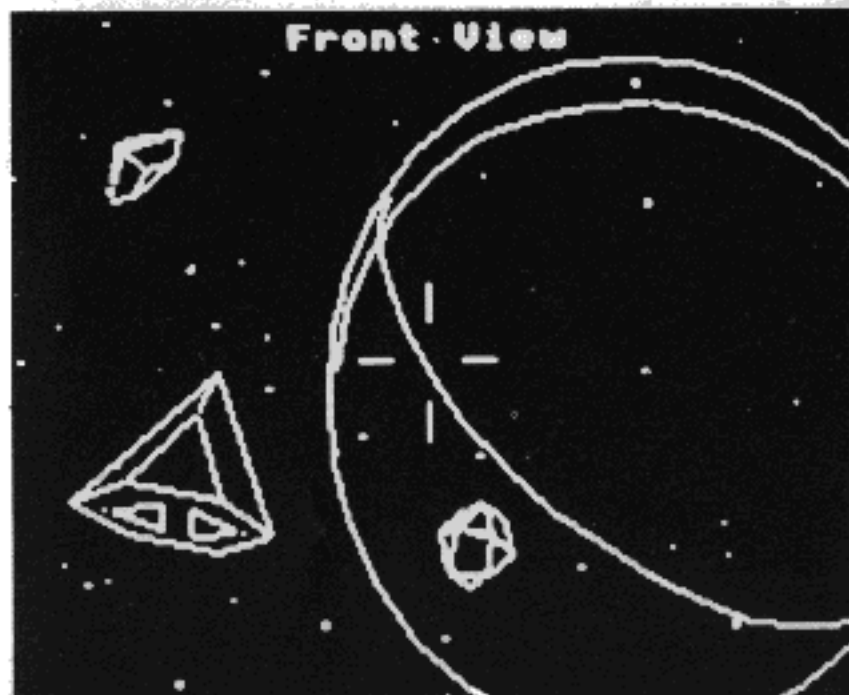


A 'shark-teeth' design personalises this Python Class Deep Space Cruiser, which probably belongs to a galactic freebooter or pirate.

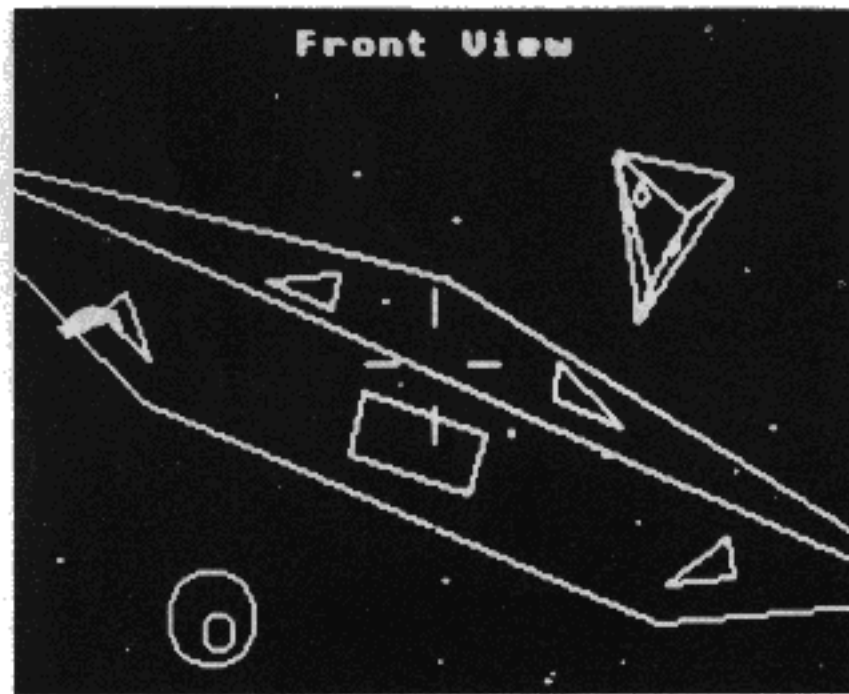
Small ships hovering very distant from a planet are pirates. Large ships accompanied by a mixture of small fighter types are pirates. Ships that refuse to acknowledge identification signals are pirates. Around worlds run by autocracies, or clans, pirates will very often have been paid to leave trade ships alone. Piracy is a huge, and complex, business, and any life-respecting trader will learn the tell-tale signs of pirate presence.

Police

In a Co-operative of Worlds as complex as the 2040 planets of the GalCop, the police can be as menacing as they can be helpful. The typical police vessel is a Viper GH Class PulseShip, which is very fast, and very manoeuvrable. They are on constant standby on every Coriolis and Dodec space station, and will attack – a pirate, or a fugitive trader – within seconds. They do not make arrests, they destroy. There are different police departments serving different purposes – narcotics, space-drunkenness, psychotic shooting, piracy, slave trading etc. – but all have small fleets of these very fast Viper patrol craft.



The Viper police ship is a highly manoeuvrable short-range 'hunter-killer'.



A clear picture of a Mamba Class Fighter, the pirate's answer to the Viper police ship. Fast and manoeuvrable, it is large enough to carry two homing missiles and ten tonnes of cargo.

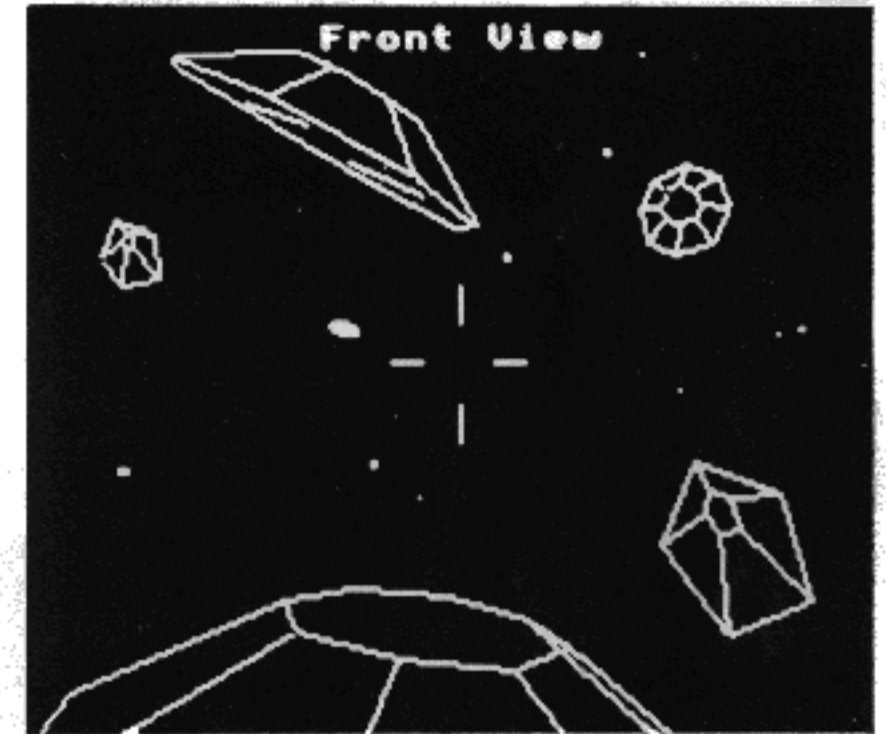
Thargoid invasion ships and thargons

The Thargoids are humankind's deadly enemy, and throughout the 8 galaxies there are at least 50 war zones between humanity and Thargoid. This highly technologically advanced insectoid race is also at war with 17 other space-going life-forms.

All Thargoid combaters are ruthless in combat, and some may be comparable with elite-status human combat pilots.

Though most of the Thargoid Space Fleet is currently engaged by the Galactic Navy in InterGalactic Space, a few of the smaller battle ships make occasional destructor-raids into human space. These ships are extremely fast for their size and invariably have anti-missile (ECM) Systems.

The Galactic Banks will pay a handsome bounty for the destruction of a Thargoid invasion ship. Your most dangerous enemy, a Thargoid may – in addition to its own fire-power – activate te-controlled killer- ('thargons'). Destroy sided mother ship, ver, and the ons will cease to a threat.



Additionally, most Thargoid battle ships carry several small, remote-controlled 'thargons', killer-craft each equipped with a single, but highly advanced, pulse-laser. The Galactic Navy are developing their own deep-space RemCraft, and pay a large bounty for any thargon craft that are brought to them.

(N.B. Bounty on Thargoid invasion craft destroyed is very high. Thargoid battle-cruisers believed to be able to 'hover' in Witch-Space (hyperspace) and destroy through-coming craft).

OTHER SPACE TYPES

Rock hermits

Pirates, ageing bounty hunters, or planetary outcasts, who create living space out of asteroids. They usually choose large asteroids, and set up signal beacons to warn off miners. GalCop Law protects Rock Hermits, but since most of the asteroid is hollowed-out, there is little advantage to be gained by 'mining' them anyway.

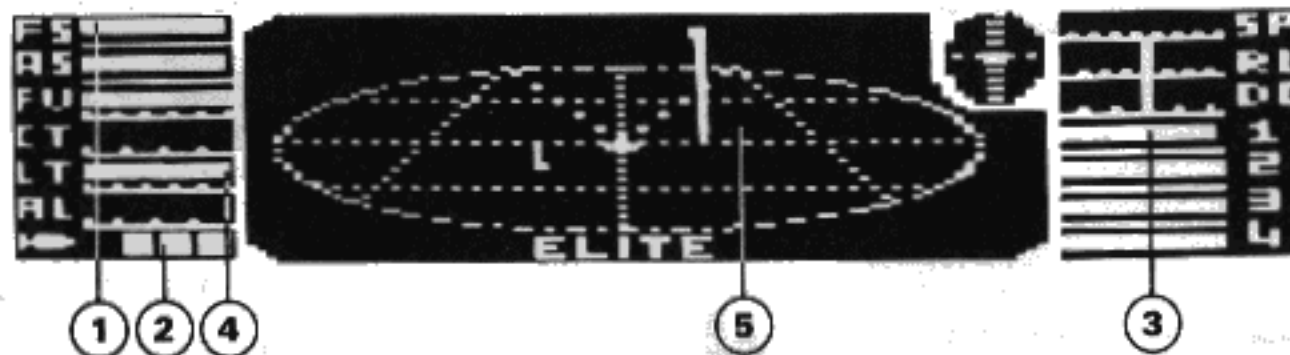
Generation ships

Before the development of the WS Thru-Space drive, in all its various forms, interstellar travel occurred in large, self-sustaining environment ships – Generation Ships – most of which have now been logged and their progress monitored. There are more than seventy thousand of these immense vessels ploughing their way through the galaxy, some of them into their 30th generation. The penalty for interference with such a vessel is marooning.

Space dredgers

These immense factory ships are to be found wherever there has been a war, or a Thargoid invasion, or a natural catastrophe. More than forty miles long, the dredgers are a life-form to themselves. The Dredgers are huge cities in space, feeding off debris and ruination. Heavily armed, and with fleets of reconditioned fighter ships, they are to be avoided at all cost.

COMBAT CONSOLE



1 Defensive shields take power from two energy bank sources, fore and aft.

2 Missile status depicts the number of missiles on board and whether they are 'targetted' (yellow) or 'untargetted' (green) or 'locked and ready to fire' (red).

3 Energy banks will rapidly drain if defensive shields are taking excessive fire. Using lasers or an ECM System will also drain their resources. When the fourth bank is tapped, an ENERGY LOW message will flash onto the screen. Eventually, in normal circumstances, the banks will be automatically replenished by surface radiation absorption.

4 Laser temperature will rise during continuous firing of the ship's laser(s). As the central housing overheats, a laser will temporarily cut out rather than destroy the system.

5 The 3-dimensional scanner operates in such a way that you can pinpoint a ship above and below yours, as well as to the front, behind or to the sides. The vertical bars show this clearly.

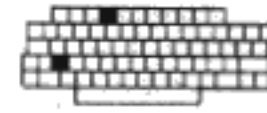
f3 offers weapons and other – non-combative – hardware for sale.

AGGRESSIVE WEAPONRY

ITEM	TECH LEVEL	PRICE/CR
Fuel	Always	Varies
Missile	Always	30
Large Cargo Bay	Always	400
ECM System	2	600
Pulse Laser	3	400
Beam Laser	4	1000
Fuel Scoops	5	525
Escape Capsule	6	1000
Energy Bomb	7	900
Extra Energy Unit	8	1500
Docking Computers	9	1500
Galactic Hyperdrive	10	5000
Mining Lasers*	10	800
Military Lasers*	10	6000

Lasers

Pulse lasers are initially housed only in the front of the ship, and so no sights appear across rear or side views until such time as you have sufficient credits (from combat and trading) to afford lasers for these mountings. As we shall see, with sufficient cash you will also be able to upgrade pulse to more powerful beam lasers.



A The Cobra astrogation console accommodates a single laser-fire key (A). Pilots with joysticks use the fire button, of course. Even fully equipped only one laser may be fired at a time. If a laser overheats it will not fire (observe the laser temperature bar).

Lasers are the principal armament of all space fighters.

Pulse lasers will be offered for sale at planets of Tech level 3 or above (see Trading). Beam Lasers will be offered at Tech level 4 or above. If a beam laser replaces a pulse laser the price of the pulse laser is refunded after the beam one has been fitted.

Pulse laser specification: Ingram Model 1919A4 Pulse Laser is recommended for all positional laser mountings, but is especially effective for rear-shooting. Fires intermittent laser 'rods' 610mm in length, with a cycle rate of 1500 RoPM. The barrel is of high grade Allutium fibre, lined with tempered QuQorian Silica. Power provided directly from inverse energy banks contained in main ship's drive. Each rod is capable of piercing 267mm of Flux-Locked metal.

Beam laser specification: Ingram Model M1928A2 is highly recommended for front shooting. Beam lasers fire continuous laser strands, up to 150 in parallel. Barrel is Allutium + lined with tensioned plastiglass, and as with the 1919A4 Pulse laser, power is provided by main drive link. Beam lasers are capable of slicing through 410mm FL metal.

Military lasers* are the very height of sophistication. Costing fifteen times the price of a pulse laser and available only on planets at Tech level 10, it is an extremely effective piece of hardware.

(See also Mining lasers* under **Non-combative Equipment**)

Military laser specification: Range and penetration twice as effective as the Ingram model M1928A2 beam laser. This is Lance & Ferman's entré into the laser market. Hitherto known for their highly effective and relatively cheap missile systems, in the military laser they have in effect created a whole new laser market. The LF90 is the current computer-aided model and comes with x4SUSAT sights.

Missiles

Missiles are always available, whatever the nature of your destination world, though no more than four may be carried at any one time. They are extremely effective weapons and are carried by the larger star ships. Your ship's computer will warn you when one is fired at you with a message on-screen. Unless your ship is fitted with ECM (see below) you will have to outmanoeuvre the missile, which will home in on you relentlessly. If a missile hits you, it can almost completely exhaust a fully charged shield and, if your shields and energy are low, may well be fatal.

Before a missile can be fired it must be locked onto a target. When fired, it will home in on that target and destroy it, unless your enemy successfully takes one of the precautions described above. The missile launch mechanism is very reliable and hardly ever jams. Missiles can be locked onto targets in any view (f0, f1, f2, or f3).

The targeting sequence is engaged by hitting the T key. One of the square missile status indicators on the astrogation console will then turn yellow. When any



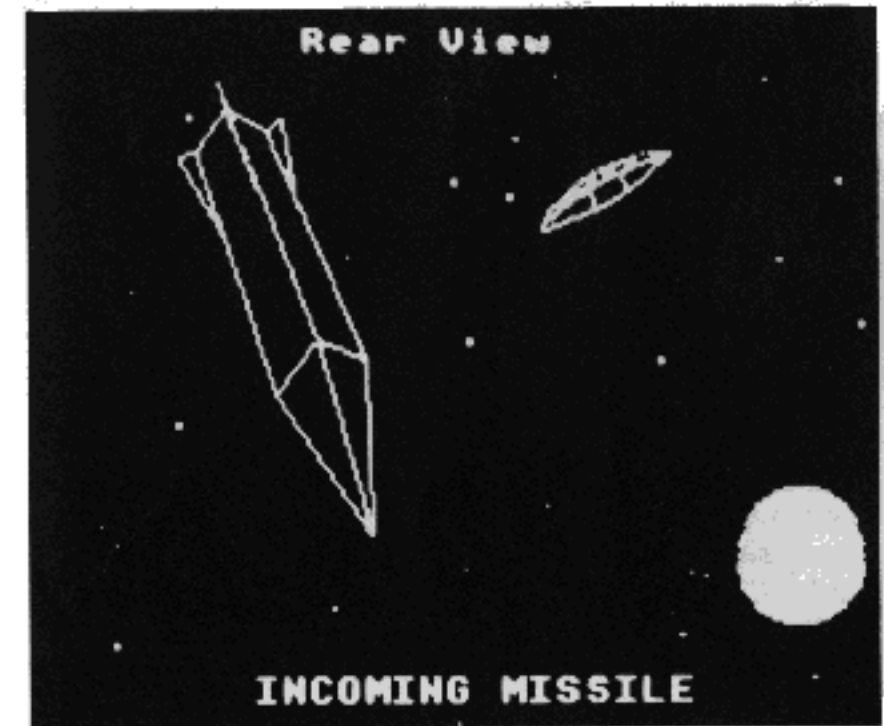
M and U

possible target enters the cross-hair region the missile will lock onto it, the missile status block turning red. A beep will sound to inform you of this.

The M key will then fire the missile. The U key (Unarm) will abort the sequence at any time before firing.

Missile specification: Lance & Ferman Homing Missiles (4x4) are now recommended for all small class trade-combat ships, but can be fitted as part of a mixed design weapon rack. LF missiles have 2IL-135 guidance systems, and optional manual directional control overrides. Warhead packed with Terminal 9 explosive, and the 4x4 is invulnerable to all known counteraction, except ECM systems. Capable of Megazon Destruct Force 7. Prototype first used in 2987, during Ineran Wars.

Readily available and relatively cheap at 30 Credits, missiles are extremely effective weapons. T targets a missile when an enemy is in your sights (a bleep confirms this). M will fire it; U will unarm it. In the picture, this ship's energy banks are about to be substantially reduced.

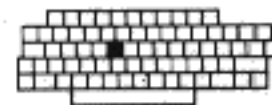


TAB

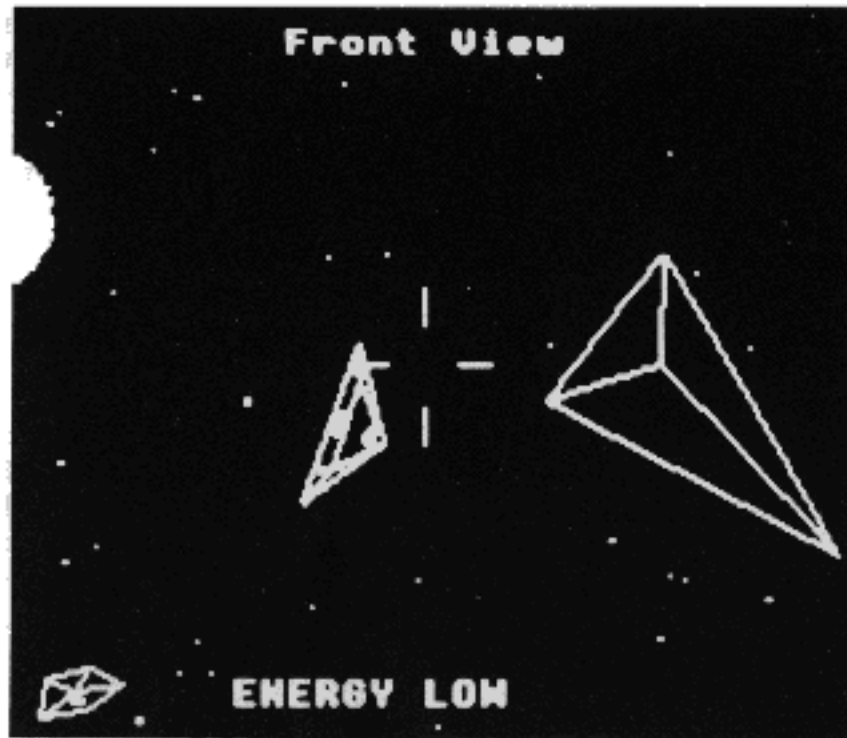
Energy bombs

An energy bomb will be offered for sale at a planet of Tech level 7 or higher, and can be used only once. It is activated by the TAB key and will destroy all other ships, asteroids, and missiles in the vicinity.

Energy bomb specification: Medusa Pandora Self Homing Energy Bomb (available at Tech Level 7 worlds or higher) is a tactical weapon capable of Megazon Destruct Force 13. Has heat radius of 9000 km. Developed by Klaus-Kline laboratories for multi-role combat using 'launch-and-leave' techniques.



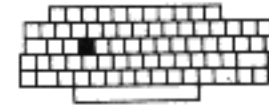
T



Once a defensive shield is depleted, enemy missiles and lasers will take energy directly from your ship's energy banks (1, 2, 3, 4 on your console).

ENERGY LOW appears on-screen when further attacks will very soon spell disaster for your ship.

Spinning away from a Mamba pirate ship is an escape capsule which will take the space brigand to a station nearby.



DEFENSIVE MEASURES

Safety Zone

The Orbit Space around any Coriolis Space Station is safe. The Stations own defences will come to your immediate assistance. Entry to safety zone is signalled below the compass.

Shields and energy banks

Your ship comes equipped with fore and aft shields and energy banks. The shields protect your ship from aggressive fire, and will be recharged from the energy banks. Constant fire will harm the shields. Once a shield is depleted, enemy lasers and missiles striking that shield will take energy directly from the energy banks and may even destroy items of cargo or ship fittings. When all your energy banks are empty your ship will be destroyed. Using lasers or an ECM system will also deplete your energy banks.

The ship's computer will keep you informed of any damage to your ship and will also warn you when energy levels are dangerously low.

An Extra Energy Unit may be fitted at planets of Tech level 8 or higher, and doubles the energy bank replenishment rate. This is the energy unit with the copper coloured top. No other unit looks like it, or lasts like it.

Defensive shield specification: The shields consist of hi-tense flux webs of Zieman-charged sub-particles. They are weakest where the laser and missile tubes pass through the ship's hull, and along the central ship band where the two shields overlap, and cause a stress zone.

ECM

- E An ECM System (literally Electronic Counter Measures System) is offered for sale at Tech level 2, and may be used any number of times given sufficient energy replacement. When activated by the E key, ECM destroys all missiles in your vicinity – including any that you have fired. Some enemy ships, especially traders, will have this and may use it against your missiles. Your ship's computer displays an E on the console when it detects ECM broadcasts.

Anti-missile (ECM) system specification: Radiant-Magnetic 'wipe-out' using ion-saturation theory developed by Bell and Braben on Riedquat 359. Electronic Counter Measures Systems use minute charged particles of InterSpac Heavy Element dust, releasing their radiant energy and setting up expanding nuclear flux chains.

Escape capsule

An escape capsule can be fitted in place of your cabin at any world of Tech level 6 or higher. If ESCAPE is then hit during combat the capsule will be jettisoned from the ship be automatically tracked by the nearest world and will travel safely to a Coriolis space station. Your cash will be preserved but all your cargo and ship equipment will be lost.

However, this item comes with a widely recognised insurance cover which will guarantee you a new Cobra Class ship, equipped in like manner. The contents of the cargo hold is exempt from this protection.

Since the unique IR signature of a ship's hull is used to file police records, abandoning your ship in this way will have the effect (unfortunately exploited as much by galactic brigands as trader victims) of clearing your police record.

You may see an escape capsule leaving an enemy ship. This will not harm you unless you crash into it.

Escape capsule specification: Recommended model is

the Xeeslan FastJet LSC 7, which can support two human life-forms for seven weeks, in moderate Suspended An.state.

NON-COMBATIVE EQUIPMENT

Fuel

Fuel is always available. You can refill your tanks to full (7 light-year) capacity – no less is permitted.

Fuel Scoops

Fuel Scoops may be fitted to the hull at a planet of Tech level 5 or higher. These enable a ship to obtain free hyperspace fuel by 'skimming the sun' – flying close to it at high velocity.

Since fuel scoops utilise powerful electro-magnetic fields to guide the solar wind into their converters, they may also be used to pick up miscellaneous space debris. Almost all pirate vessels are fitted with these so that they can blast their prey apart and sift among the wreckage, rather than attempt to dock with a hostile craft.

Once fuel scoops are installed, you can scoop up an object (such as a cargo canister) by keeping it in the lower half of the screen view area while flying right up to it.

Fuel scoop specification: Fuel scoops are considered an essential for Deep Space, and dangerous zone trading. They have a standard design, and a standard fitment. They use powerful electromagnetic fields to guide solar wind or small space debris into their ReQax convertors.

Cargo bay extension

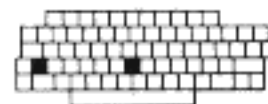
One cargo bay extension can be bought, increasing the hold space from 20 to 35 tonnes.

Cargo bay extension specification: Standard model is the Mariner Freight Chamber.

Docking computer

This is available from all Tech level 9 planets; they are fitted to the ship's flight control system and enable it to dock the ship automatically. The auto-docking sequence is triggered by the C key and switched off by P.

Docking computer specification: The SinCorn RemLock D&A System is a sophisticated and expensive piece of



CTRL.H

gadgetry. It comes with MemnSomn pilot interaction to induce hi-cram sleep during the manoeuvre.

Intergalactic hyperdrive

The intergalactic hyperdrive is obtainable only from planets at Tech level 10 or higher, and can only be used once. The Inter-Galactic Hyperdrive is engaged by pressing CTRL and H simultaneously.

IGH specification Although a number of manufacturers have supported a whole range of IGH motors, it is recommended you remain loyal to Xexor/Hikan who provide the standard hyperspace transit drives.

Asteroid mining lasers*

Asteroid mining involves the fitting of fuel scoops and special mining lasers to your ship. Ships which always carry them are known as 'Belters'. They search for asteroids and, on finding one, use the laser to fragment it into pieces sufficiently small to be taken into the cargo bay.

Mining lasers specification: Kruger Model ARM64 Sp. Mining laser is highly recommended as both a trade and combat addition. Uses variable frequency laser rods of 200mm length, fired in wide beam, 100 channels/beam. Automatic debris-pattern lock ensures no fragments of large size of target asteroid impinge on ship space. Can destroy asteroids of up to 2KtHH durable Mass. Must be fitted with a fuel and matter scoop.

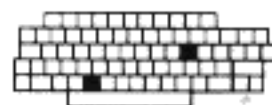
Key Functions

Combat

- A Fire laser
- T Target missile
- M Fire missile
- U Unarm missile
- E Operate ECM
- TAB Launch energy bomb
- ESCAPE Launch escape capsule
- f3 Buying mode/equipment acquisition

C

P*



Intergalactic Trading



The Cobra Mk III, designed primarily as a trading ship, combines combat efficiency and manoeuvrability with substantial cargo space (20 Tonne Canisters) and with scoop attachments for space debris, jettisoned cargo and space rock.

Most space stations have made the process of trading very simple, in order to facilitate a fast turnover in goods and ships. Import and export tariffs – which are high on some worlds – are automatically added or deducted and this is reflected in the prices shown. The auto-trader system, employed by the Cobra, does not allow for more specific trading deals to be performed.

A selection of the more valuable alien items that are tradeable is given in this manual, but the trader must deal with them in person.

Once docked you are linked directly with the CorCom Trade System. At your request you can obtain a list of basic trade items available for purchase.

Slaves are measured by the tonne in galactic trading. This may seem a little strange, but it includes the cryogenic suspension system necessary to keep them alive during space travel. The slave trade, once almost eliminated by the Galactic Government is now returning, despite the efforts of the Galactic Police Force to suppress it.

ITEM	AVERAGE PRICE/CR
Food (Simple organic products, see below)	4.4 tonne
Textiles (Unprocessed fabrics)	6.4 "
Radioactives (Ores and by-products)	21.2 "
†Slaves (Usually humanoid)	8.0 "
Liquor/Wines (Exotic spirits from unearthly flora)	25.2 "
Luxuries (Perfumes, Spices, Coffee)	91.2 "
†Narcotics (Tobacco, Arcturan Megaweed)	114.8 "
Computers (Intelligent machinery)	84.0 "
Machinery (Factory and farm equipment)	56.4 "
Alloys (Industrial Metals)	32.8 "
†Firearms (Small-scale artillery, sidearms etc.)	70.4 "
Furs (Includes leathers, Millennium Wompom Pelts)	56.0 "
Minerals (Unrefined rock containing trace elements)	8.0 kg
Gold	37.2 "
Platinum	65.2 "
Gem-stones (Includes jewellery)	16.4 g
Alien Items (Artefacts, Weapons etc.)	27.0 tonne

†These items are defined as illegal by the Galactic Government, so trading in them is risky.

Shown on this list are the quantities of each item available, and the current market price per unit. Most CorCom Trade Systems deal exclusively under blanket categories, including FOOD, MACHINERY, MINERALS and GEMSTONES.

DISO MARKET PRICES			
PRODUCT	UNIT	UNIT PRICE	QUANTITY FOR SALE
Food	t	2.8	18t
Textiles	t	6.4	18t
Radioactives	t	21.2	26t
Slaves	t	8.0	14t
Liquor/Wines	t	25.2	39t
Luxuries	t	91.2	8t
Narcotics	t	114.8	-
Computers	t	84.0	-
Machinery	t	56.4	18t
Alloys	t	32.8	25t
Firearms	t	70.4	-
Furs	t	56.0	-
Minerals	t	8.0	61t
Gold	kg	37.2	14kg
Platinum	kg	65.2	17kg
Gem-Stones	g	16.4	14g
Alien Items	t	27.0	-

LAVE MARKET PRICES			
PRODUCT	UNIT	UNIT PRICE	QUANTITY FOR SALE
Food	t	3.6	14t
Textiles	t	6.0	11t
Radioactives	t	20.0	15t
Slaves	t	6.0	-
Liquor/Mines	t	23.2	1t
Luxuries	t	94.4	28t
Narcotics	t	49.6	14t
Computers	t	89.6	-
Machinery	t	88.8	-
Alloys	t	33.2	9t
Firearms	t	55.6	-
Furs	t	52.4	17t
Minerals	t	18.8	57t
Gold	kg	36.8	7kg
Platinum	kg	64.4	9kg
Gem-Stones	g	16.0	8g
Alien Items	t	51.2	-

f7 activates a list of basic trade items at current market prices.

The prices shown at the time of trading represent an offer to you and will be guaranteed while you are in Trading Mode.

The purchasing of items is almost instantaneous. You will be offered each in turn. If you do not wish to buy, merely indicate your decision by pressing RETURN.

INVENTORY	
Fuel: 7.0	Light Years
Cash: 8.8	Cr
Textiles	2t
Radioactives	1t
Liquor/Mines	1t
Alloys	1t
Minerals	1t

f9 offers an inventory of cargo, fuel and cash.

PRODUCT	UNIT	UNIT PRICE	QUANTITY FOR SALE
Food	t	3.6	16t
Textiles	t	6.0	15t
Radioactives	t	20.0	15t
Slaves	t	6.0	-
Liquor/Mines	t	23.2	1t
Luxuries	t	94.4	28t
Narcotics	t	49.6	14t
Computers	t	89.6	-
Machinery	t	88.8	-
Alloys	t	33.2	10t

Quantity Of Alloys/t ?

f1 puts you in purchase mode. Press RETURN if you do not wish to purchase a particular item.

f2 puts you in selling mode.

If you wish to buy, numerically indicate the amount you wish to purchase; autoSCAM modules will immediately load your purchase into the cargo bay. Your screen will indicate your remaining credit facility.

When all items for sale have been offered to you your *cargo hold status* will appear to confirm your purchase.

The Cobra trade ship must dock with a Coriolis space station before buying or selling cargo. It has no Free Space trade facility, apart from routine jettisoning of cannisters.

Once docked, the selling process is automated, although there is no requirement to sell.

SELL CARGO:			
Food	2t	Sell (Y/N)?	Y
Textiles	4t	Sell (Y/N)?	N
Radioactives	1t	Sell (Y/N)?	Y
Liquor/Mines	1t	Sell (Y/N)?	Y



How to Trade

BUYING MODE FOR GOODS

- f7 list of goods available on target planet
- f9 inventory of your cargo
- f7 to see again what is available
- f1 you are now being asked (at the bottom of the screen) how much food you want to buy. Choose a number equal to the tonnage of food you wish to purchase, and press RETURN. You will then be asked, in turn, how much you want to buy of each item on the list of goods available. Press RETURN when you do not wish to purchase. You can buy

only 20 tonnes in total, and no more of a commodity than there is available. Once you have gone through all the items, the trading computer will print up your inventory.

SELLING MODE

- f2 enters selling mode. This comprises a series of Y/N questions, the answers to which will concern the possible sale of all cargo including that just bought.

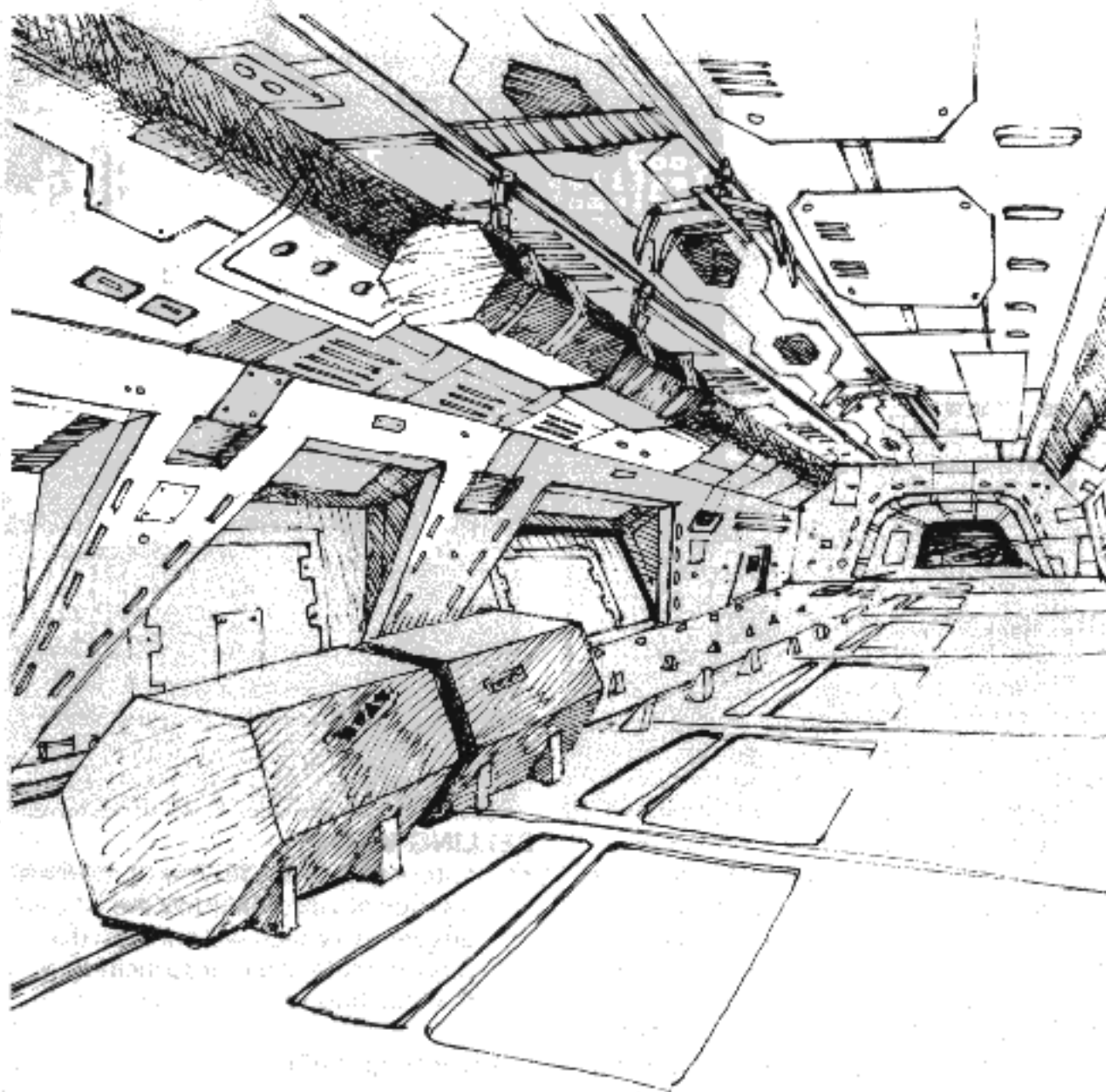
*(Advanced selling systems permit the sale of precise amounts.)

Advice to Traders

The Cobra trade ship can be fitted with four lasers, four missiles and one energy bomb. This should be sufficient to make trade possible within the System Space of even heavily piratised worlds. But it is strongly recommended that pilots achieve a combat of at least 'Deadly' before any worlds designated 'Anarchy' or 'Feudal' are approached, especially if the cargo is high tech machinery or luxury goods.

To make money as a trader is no easy task. Unless you have backing capital you would be well advised to start with foodstuffs, textiles, minerals and luxuries.

An artist's impression of a section of the cargo bay of an Anaconda Class Interstellar Freighter. It is the largest known freighter with a 750-tonne capacity cargo bay and is used mainly on the safer trade routes.



Demand for goods varies widely and prices within planets fluctuate, but GalCop regulations prohibit planets from advertising their requirements or announcing their market prices beyond their own System Space. Any trader, therefore, approaches all transactions with a certain financial risk.

Trade depends upon demand, and selling prices depend upon the *level* of demand on the planet, and its available money. None of these factors can be assessed before docking.

Agricultural planets invariably have excess produce at reasonable purchase prices, and such food sells well at industrialised, middle- to high-technology worlds. Raw materials, and ores, will sell well to middle-tech worlds, which are usually able to refine them, and the refined product can fetch excellent prices at worlds of very high tech status.

The rules are complex, and anarchy and piracy has its effect on causing the rules to change.

In trading with a planet, consider its economic profile:

Agricultural worlds need specialist food and raw materials, but mostly basic machinery and spare parts. If they are rich, they need luxuries and high tech industrial machines. They produce food in quantity, raw materials and specialised 'organic' items, like some textiles.

Industrial worlds need agricultural produce; raw materials (for refining); resource exploitation machinery; (if rich) high tech goods. They produce basic items of *need* for civilised worlds: beds, seals and gaskets, power storage units, basic weapons, mass produced fertiliser, mass produced medicines etc.

Think about a planet's *needs*.

Think what might make the *society* function.

Don't trade expensive trivia to a hungry world.

IF THE PROFIT ISN'T WORTH IT, TRADE IT SOMEWHERE ELSE.

Alternatives to Trading

Since the Cobra craft is equipped as a fighter as well as a trader, with in-built capacity for strengthening its armaments, there are alternative life-styles to trading which may prove profitable, but which are excessively dangerous.

BOUNTY HUNTING

Galactic banks, which insure the larger trading convoys, will pay a large bounty for each pirate ship destroyed. A ship's computer will transmit photographic evidence of any kill to the GalCop Bank Federation Monitoring Authority. The IR signature of the destroyed ship is then tallied with all known pirate vessels, and the bounty hunter pilot credited accordingly.

Bounty hunters commonly have Cobra Class ships in order to masquerade as traders. They simply hyperspace into a system (anarchic and feudal worlds especially) and wait to be attacked, ensuring that they have sufficient hyperspace fuel (Quirium) for a quick escape.

PIRACY

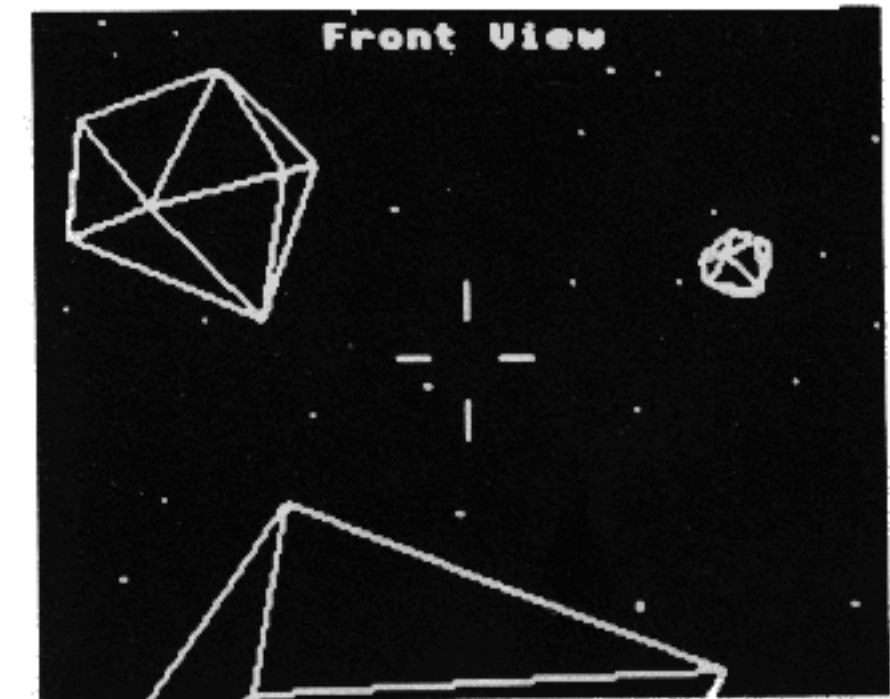
Piracy is widespread throughout the 8 galaxies, and many pirates are not hardened criminals at all, but failed traders who have turned to this way of life in desperation. To survive as a pirate, looting freighter convoys and small ships, requires a high degree of combat experience, since not just Police Vipers will pursue them, but other pirate ships and Bounty Hunters, too, will prey upon them.

But the rewards are high. Provided the pirate ship is equipped with a fuel scoop, the jettisoned tonne-cannisters of attacked cargo ships can be scooped up and traded.

ASTEROID MINING

There is money in rock, but to make the most of it a Cobra ship must be fitted with a fuel scoop and a MinReduc 15 Mining Laser (or some equivalent type). The mining laser will blast very large asteroids into very small fragments and the scoop can rapidly swallow this tradeable ore.

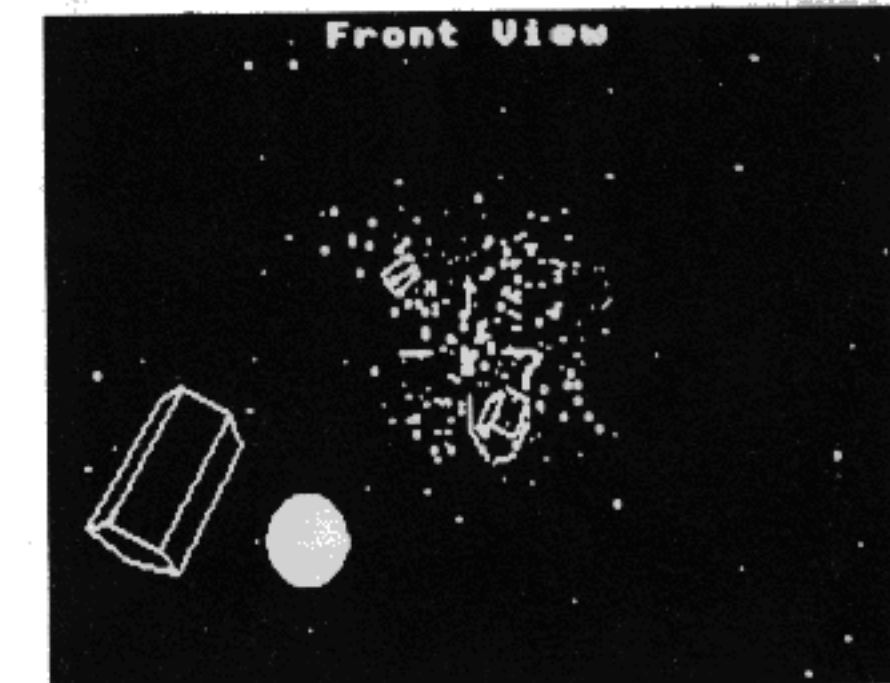
Asteroids are large chunks of rock which are mined (for the valuable trace elements that they contain) with the aid of a mining laser* designed to fragment the rock into splinters small enough to be taken into a cargo bay by a fuel scoop. As they are a navigational hazard, a small bounty is paid for destroying an asteroid, and a kill awarded (which will help to improve your rating).



FREE SPACE CARGO

Trade ships are often destroyed (by natural catastrophe or enemy action) and their cargo left ungathered. Using a fuel scoop such 'free bounty' can be collected. The contents of the cannisters will be unknown until they are taken aboard and examined, and may be worthless or worth a fortune. If their contents are illegal goods, they cannot be traded or sold without legal risk.

Chromalloy canisters are used to store cargo during space flights. They are extremely resilient and may survive the demise of their holding vessel. Such canisters can be picked up in space with a fuel scoop fitted to the bottom of a ship, but pilots beware picking up contraband by mistake since it may harm status and invite attack.



(NB: Pressurised cargo canisters are the Universal means of storing cargo for Interplanetary Space Voyaging. Made of HiFlux Chromon-alloy, they hold one Gal

Tonne of goods, under variable pressure and temperature conditions. Tales have been told of such barrels being discovered after over five hundred years on barren moons, and such 'Moon salvage' is a remarkable source of historical artefact material.)

ILLEGAL TRADING

It is surprising how many planetary systems will allow the purchasing of illegal trade items, notably firearms, narcotics (especially Arcturan Megaweed) and slaves. Slaves are supplied in cryosuspension in transporter coffins, and often turn out to be old and sick specimens of vaguely humanoid life forms. Nonetheless, few systems will allow the *selling* of these items without taking recriminatory action.

Key Functions

Trade

- f7 Market prices
- f9 Inventory
- f1 Buying mode/trade goods
- f2 Selling mode/trade goods



Political Profile Of The Universe

Consequences for Trade

To trade successfully, and profitably, will almost certainly require you to fly the Cobra trade ship into politically unstable planetary systems. Pirate and free-booter activity is high in many solar systems, and adequate ship defences are essential if the rewards of higher selling prices are to be reaped.

For the benefit of new traders, a brief political summary is given below, but reference should be made to Kroweki & Carr's *PsychoHistory and Economic Theory in the GalFederation*, 2845

Planetary governments, or federations, determine the relative safety of their Solar Space. Ranked in decreasing order of safety, the 2040 officially registered worlds of the Galactic Federation can be classified as:

- CORPORATE STATES
- DEMOCRACIES
- CONFEDERACIES
- COMMUNIST STATES
- DICTATORSHIPS
- MULTI-GOVERNMENT
- FEUDAL WORLDS
- ANARCHIES

CORPORATE STATES

Like ENGEMA and ZAATXE, these are well-ordered worlds, which have usually developed from settlers who

practised a free trade form of competition. Taxation is high on such worlds, but the living standards are high also. Corporate planets wish to *protect* their trade, so goods are expensive, but luxuries are welcomed. Import licences are often necessary.

Engema is an agricultural world, run as a single farming co-operative. Farmers receive a fixed payment for their crops, whether or not the harvest is good, and selling prices do not vary greatly. It is a dependable market, and customer relations are good. Luxuries, machinery and raw materials sell well here.

Zaatxe is an example of a rich, industrial state (Tech level 12). It produces luxury goods, elaborate and innovative machine systems, and specialises in Prototype design. Prices fluctuate depending upon the level of inter-state competition, but it is always a safe bet to buy recently-developed machine items which have not yet spread very far across the galaxy.

Dictatorships

Dictatorships such as the worlds LAVE and ENZAER, are only moderately safe to trade with, but are well worth the risk (provided the trader is well defended and combat trained). Very often pirate attack will *not* occur because of an agreement between pirate fleets and the world itself. A proportion of all incoming trade is 'allowed' to be stolen by pirates, who will then leave the world alone, and protect its ships from aliens or rogue traders. It is an uneasy liaison, which often breaks down.

Lave is an agricultural world, and Enzaer an industrial planet, but a similar principle operates on both surfaces. There are two trading standards, that of the People and that of the Aristocracy. Standards of living are artificially generated, a veneer of progress, and luxury goods, machinery and textiles sell well – usually. The great demand, however, is for basic commodities, especially foodstuffs, clothing and raw materials. These will sell well when the voice of the People has been raised in protest.

Anarchy Planets

A trader can make his biggest profits here and reach his grave the quickest. Worlds like Onisou and Xeesenri have vast wreck-yards in far orbit, the dead places of ships that came to trade honestly, and fell prey to trickery.

DATA ON MAESIN

Distance: 57.2 Light Years

Economy: Poor Agricultural

Government: Anarchy

Tech. Level: 1

Population: 0.8 Billion

(Small Harmless Furry Rodents)

Gross Productivity: 768 M CR

Average Radius: 5784 km

These are lawless places, and have usually become so because the original settlers competed too hard when there was too little resource material. Those worlds which survived holocaust did so because of uneasy and bloody alliances between clan families. Pirates and mercenaries were hired for protection and assassination purposes. Anarchic worlds will trade readily in narcotics, slaves, firearms and exotica, and the price will be good ... if you get a price at all. These worlds are almost always supplying invisible Masters, usually elite trader/combaters who have turned to crime as the most profitable way of life. Such form loose federations, and trade on the black market extensively throughout the galaxies.

These worlds pay highly for goods they cannot produce themselves, because they know that traders avoid them. Their own products need specialised, illegal outlets: weaponry, narcotics, eavesdropping devices ... if it's covert, then anarchic worlds are producing it. Trade in these items and you will get rich quick, or dead quick, or at least become a 'Fugitive'.

Alien Races

Of the 2040 officially registered planets in the GalCop, all but 45 support human colonies only, that is to say, human presence elsewhere is restricted to settlements in under-populated parts of the land surface.

Trading at such worlds depends, for its success, very much upon the extant state of co-operation between human and alien. Humans control the Coriolis stations in orbit, but the availability of items for trade, and their relative expense, can be affected by the controlling life forms.

Most alien life forms are either too primitive, or too glad of off-World trade, to interfere. Some, such as the Reptiloid life form of Esambe or the Amphibioids of Anbeen, can make a trader's life very difficult, by haggling at the point of a laser.

The available planetary information on all worlds will indicate the nature of the inhabiting life form.

Bird-forms. Dealing in alien artefacts on such worlds often involves forming a close liaison with Flight Elders, or Nest Elders, and this is very much a job for the specialist. Bird-forms are, on the whole, a delight to trade with, and the highest form of honour (fairly universally) that an off-worlder can receive is an invitation to 'keep the eggs warm for a moment'.

Amphibioids are usually a lot sharper than their wet, sluggish appearance would suggest. They are usually keen to trade in narcotics, or exotic foodstuffs. Skin creams are always well received. Technologically they tend to be backward, but will pay high prices for such middle-range items as automated ponds, croak metres, spawn freezers and swamp purifiers.

Felines are dangerous in the extreme. No matter what sort of political structures the world may have, feline aliens are pack orientated, and feudal, and very unpredictable. All traders are advised to wear body suits, to prevent secretions of sweat from triggering a feeding response among these hostile and enigmatic life forms.

To win the confidence of a feline alien is almost invariably to be invited to mate, so a certain aloofness is recommended.

Insectoids. The most dangerous insectoidal life form is the Thargoid, which is mentioned in the Combat section. Insectoidals are usually highly intelligent, often existing as a group mind. There is rarely any individuality among insectoids, and the trader must beware making deals in such a way. One life form builds earth cities up to four

miles high, and over four million drones live in the middle levels. According to legend, any trader who voluntarily ascends the earth passageway from ground to upper surface of these immense mounds is honoured with the rare title Ascender of the Scent City. And then consumed alive. But trading with insectoids can be immensely profitable, as there are so many of them (to trade in wrist watches, for example, means two to four watches per individual in a clone-group of perhaps ten thousand).

In dealing with *any* alien life-form, for the purposes of trade, there are three cardinal rules:

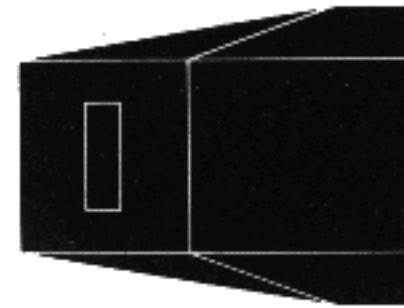
- Learn the body language of the alien race
- Cover up your body scent
- Beware of Carapace concealed weapons.



Observer's Guide To Ships In Service

In most trading and combat operations, certain ships are repeatedly encountered. All ships, whether unarmed cargo shuttles or Navy transporters, are potentially dangerous as pirate and bounty hunting activity spreads. Some ships are potentially more dangerous than others.

The brief guide given here is just an indication of the range of ship-types plying the trade and space lanes. The illustrations show top, side and front views of each craft. Dimension data provide the scale. For a fuller account see *Jane's Galactic Ships and Remote Colonial Construction*, 5th Edition, 3205 pub. Trantor House.



ADDER*

Manufactured by Outworld Workshops, a rogue breakaway company from Spalder and Prime Inc. which operates without a licence from an unknown location, the Adder-class craft has dual atmospheric-spatial capability and is often used by smugglers. Pegg's 'wingfolding' system permits landing on planetary surfaces. Carries one missile.

DIMENSIONS
45'8/30ft

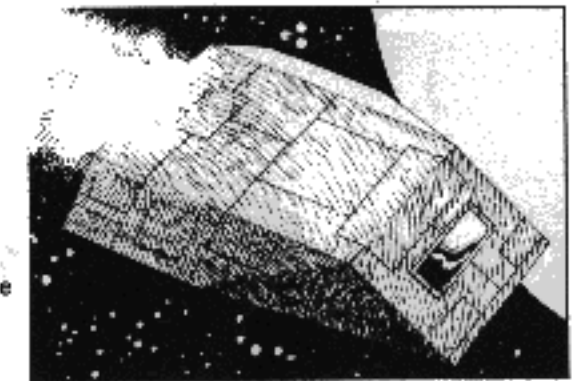
CARGO CAPACITY
2 TC (Tonne Canisters)

ARMAMENTS
Ingram 1928 AZ
Beam laser
Geret Starseeker missile

MAXIMUM VELOCITY
0.24 LM (Light Mach)

INSERVICE DATE
2914 AD
(Outworld Workshop)

MANOEUVRABILITY
CF4
(Curve Factor)

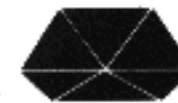
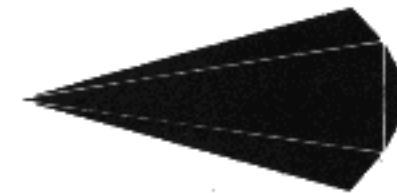


CREW NUMBER
2

DRIVE MOTORS
AM 18 bi Thrust

HULL STRESS FACTOR
T Ko 28

HYPERSPACE CAPABILITY
Yes



ANACONDA*

The largest known freighter with a cargo bay designed by Beerbaum and ThruSpace Inc., the Anaconda is the only freighter fitted with Dizaoner SpaceWares swing-float platforms. These load-balance metering devices enable the loadmaster to rearrange the cargo within seconds to increase manoeuvrability of the great ship. Equipped only with laser weaponry (the 500 Gigazap front-firing pulse), and sometimes with missiles, the Anaconda range of craft usually have fighter escorts. In trader parlance, the Anaconda is built as strong as a rogue asteroid, and steers like one.

DIMENSIONS
170/60/75ft

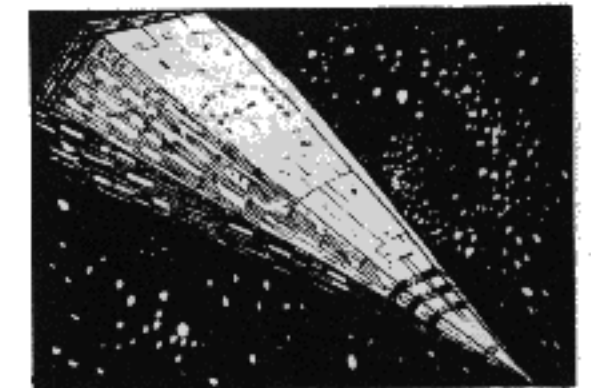
CARGO CAPACITY
750TC

ARMAMENTS
Front-fire Hassoni
HiRad Pulse laser
ColtMaster Starlasers
Missiles (Geret Starseekers)

MAXIMUM VELOCITY
0.14LM

INSERVICE DATE
2856 AD
(RimLiner Galactic)

MANOEUVRABILITY
CF (Curve Factor) 3



CREW NUMBER
40-72

DRIVE MOTORS
V & K 32.24
Ergmasters, with
under-and-over firing
tubes

HULL STRESS FACTOR
T(ensmann) JI57
C-Holding Z 22-28

HYPERSPACE CAPABILITY
YES

ASP MK II*

Galactic Navy vessel designed and manufactured in government workshops, incorporating secret self-destruct devices which are primed to activate when the astrogation controls are used by unfamiliar hands. Integument has chameleon properties enabling the ship to assume effective camouflage in any type of environment. Intended for reconnaissance and the transport of high-ranking military personnel from combat it is very fast and manoeuvrable. Despite its hazardous nature it makes an ideal pirate vessel, primarily because of the speed, camouflage and high intensity Hassoni-Kruger Burst-lasers. The Asp II has room for powerful shield generators, but only one missile pod.

DIMENSIONS
70/20/65 ft

CARGO CAPACITY
None

ARMAMENTS
Hassoni-Kruger
Burst Laser
Geret Starseeker Missile

MAXIMUM VELOCITY
0.40 LM

INSERVICE DATE
2878 AD
GalCop Workshops

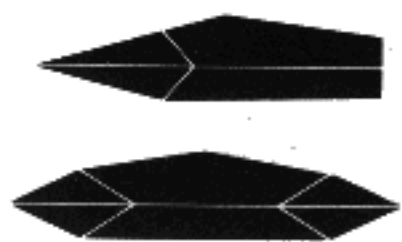
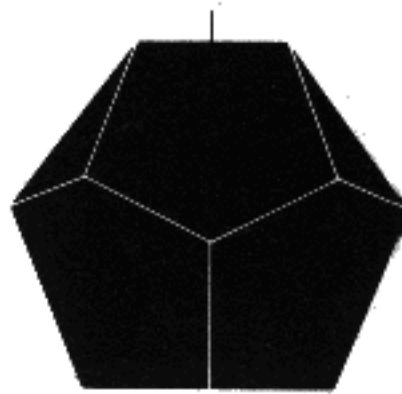
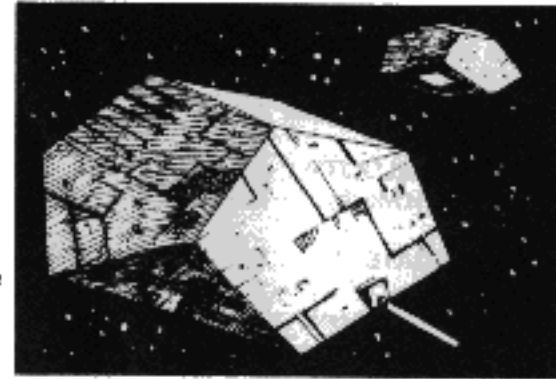
CREW NUMBER
2

HULL STRESS FACTOR
TT 16

DRIVE MOTORS
Voltaire Whiplash HZ
Pulsedrive

**HYPERSPACE
CAPABILITY**
Yes

MANOEUVRABILITY
CF 4

**BOA CLASS CRUISER***

Although marginally smaller than the Python, which it superseded, the Boa has a greater cargo capacity due to refinements in equipment design (e.g. the Renold Astrogation bloc is one fifth the size of the previous Machanalian Interspatial Wayfinder) and reduced number of necessary crew. Largely developed out of the recommendations left by Commodore Monty, a Python Captain of 40 years experience.

DIMENSIONS
115/60/65 ft

CARGO CAPACITY
125 TC

ARMAMENTS
Ergon Laser system
Standard JK Pulse laser
IFS Seek & Hunt missiles

MAXIMUM VELOCITY
0.24 LM

INSERVICE DATE
3017 AD (Gerege
Federation
Space Works)

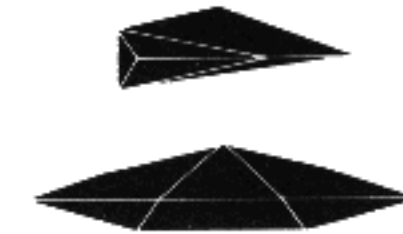
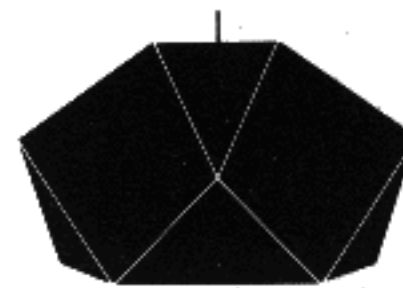
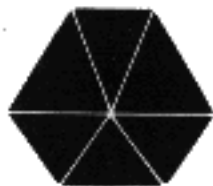
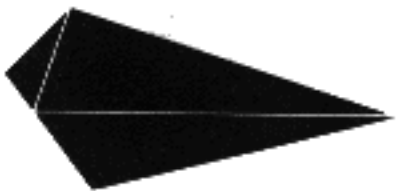
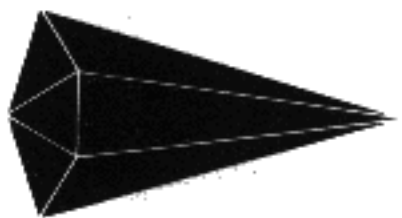
MANOEUVRABILITY
CF 4

HULL STRESS FACTOR
T(ensmann) Yo20
C-Holding K21-31

CREW NUMBER
15-28

**HYPERSPACE
CAPABILITY**
Yes

DRIVE MOTORS
4 C40KV Ames Drive
motors.
Seeklight Thrust
Systems

**COBRA MK I***

Combat-trader craft favoured latterly by pirates, the Mark I Cobra was the first trade ship designed and built for the one-man trader. Its special feature at the time of manufacture (by Paynou, Prossett and Salem) was its Prossett Drive, which incorporated afterburners with proton-tightened, interior shaft walls. These are now a standard fitting for both internal and external integuments of all PPS made craft.

DIMENSIONS
55/15/70 ft

CARGO CAPACITY
10 TC

ARMAMENTS
Hassoni Variscan laser
system and early Lance
& Ferman missile system

MAXIMUM VELOCITY
0.26

INSERVICE DATE
2855
Paynou, Prossett and
Salem

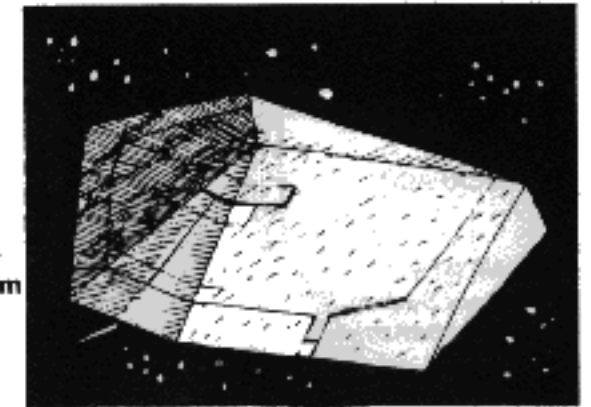
CREW NUMBER
1

HULL STRESS FACTOR
T JI 18

MANOEUVRABILITY
CF 3

DRIVE MOTORS
Prossett Drive

**HYPERSPACE
CAPABILITY**
Yes

**COBRA MK III**

Larger, more popular version of the Cobra Mk I (the Mk 2 only reached prototype stage and was abandoned due to a design fault in the hull). This ship is equipped with several special features, including Zieman Energy Deflection Shields, fore and aft, and mountings for four Ingram Pulse lasers. The Cobra is much favoured by lone-wolf traders who wish to combine potential superior combat qualities with adequate cargo space.

DIMENSIONS
65/30/130 ft

CARGO CAPACITY
20 TC

ARMAMENTS
Ingram laser system
Lance & Ferman Seek &
Kill missile system

MAXIMUM VELOCITY
0.30

INSERVICE DATE
3100 AD
(Cowell & MgRath
Shipyards, Lave)

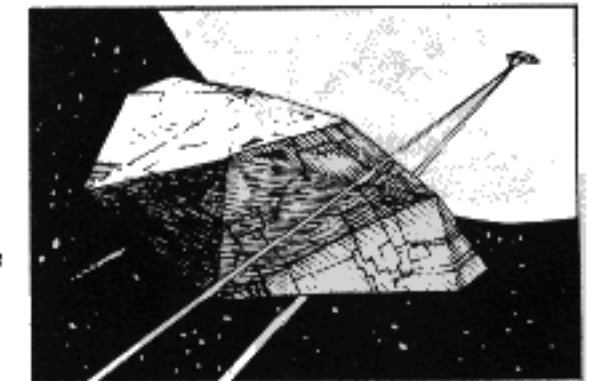
CREW NUMBER
1 or 2

HULL STRESS FACTOR
T JI 18
C-Holding M18

MANOEUVRABILITY
CF 8

DRIVE MOTORS
Kruger 'Lightfast'
motors
Irrikan ThruSpace
drive

**HYPERSPACE
CAPABILITY**
Yes



FER-DE-LANCE*

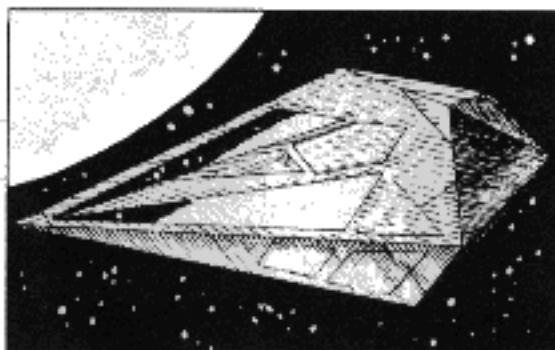
A Zorgon Petterson Group (Zee Pee Gee) designed vessel favoured by well-heeled bounty hunters and freewheeling business corporations. A sophisticated craft, capable of both limited trading, combat, and leisure function. The spacious hull is mainly given over to sophisticated weaponry, defences and navigation equipment at the expense of cargo capacity. Cabin accommodation is large and luxurious with extensive Owndirt Inc. recycling facilities, encouraging extended live-in periods (useful whilst pursuing a quarry). Fuel scoop is a standard fitting, ensuring complete self-sufficiency.

DIMENSIONS
85/20/45 ft

CARGO CAPACITY
2 TC

ARMAMENTS
Ergan Laser System
IFS Seek & Hunt missiles

MAXIMUM VELOCITY
0.30



INSERVICE DATE 3100 AD Zorgon Petterson	CREW NUMBER 12	HULL STRESS FACTOR T Ji 10
MANOEUVRABILITY CF5	DRIVE MOTORS Titronix Intersun Ionic for LT	HYPERSPACE CAPABILITY Yes

GECKO*

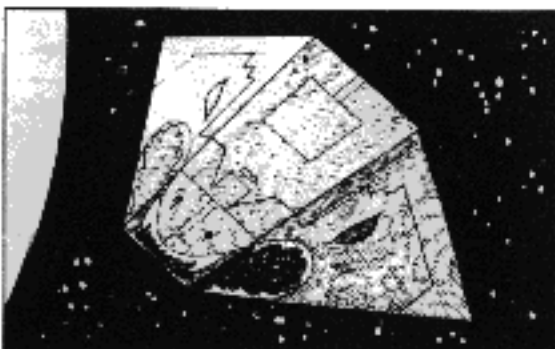
Patented by Robert Bream, but not manufactured until Ace and Faber improved upon the original design specifications after the death of the inventor. Later the design was stolen and widely circulated to a number of 'backyard' workshops who produced the ship in vast numbers with many individual variances to protect companies against lawsuits. Mainly used as a single-pilot combat craft, typically pirates.

DIMENSIONS
12/40/65 ft

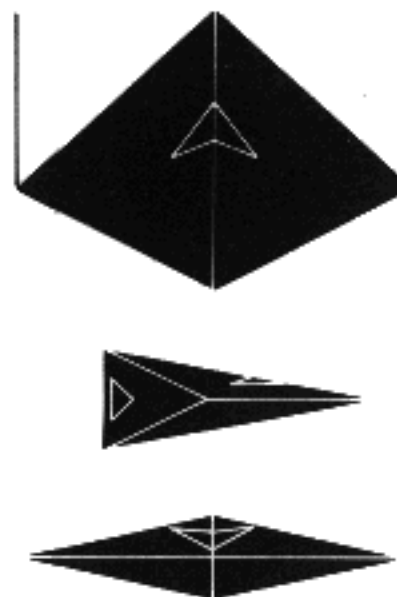
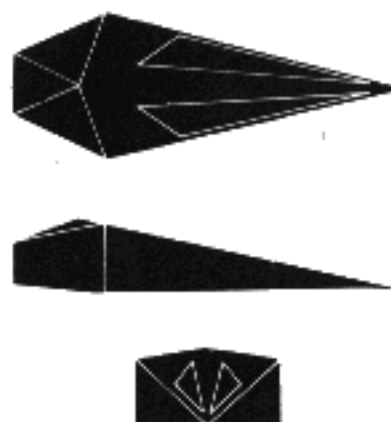
CARGO CAPACITY
3 TC

ARMAMENTS
Ingram 1919 A4 laser
LM Homing missile

MAXIMUM VELOCITY
0.30



INSERVICE DATE 2852 (Ace & Faber HullWorks, Lereface)	CREW NUMBER 1 or 2	HULL STRESS FACTOR T to 48-94 C-Holding JZ20
MANOEUVRABILITY CF7	DRIVE MOTORS BreamPulse Light XL	HYPERSPACE CAPABILITY Not available

**KRAIT***

Small, reliable one-man fighter, common until the standardised version of the Mamba became available on the open market. Several of these early Faulcon deLacy designed craft may still be found in service in remote areas, but spare parts are no longer available and the need to cannibalise has reduced numbers still further in recent years.

DIMENSIONS
80/20/90 ft

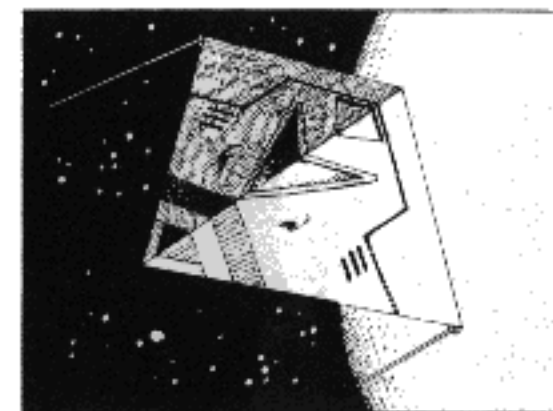
CARGO CAPACITY
10 TC

ARMAMENTS
Ergan laser system

MAXIMUM VELOCITY
0.30 Light Mach

INSERVICE DATE
3027 AD
(deLacy ShipWorks,
ININES)

MANOEUVRABILITY
CF8



CREW NUMBER 1	HULL STRESS FACTOR C-Holding A20-B4
DRIVE MOTORS deLacy SpinIonic ZX 14	HYPERSPACE CAPABILITY No

MAMBA

Fighter which grew out of custom-built craft primarily designed for racing purposes but adopted and armed by pirates due to its high speed and manoeuvrability. Cargo space was added later when Raddlett and Rayburn Shipyards (based at Reorte) standardised the variances and began manufacturing the craft in large numbers.

DIMENSIONS
55/12/65 ft

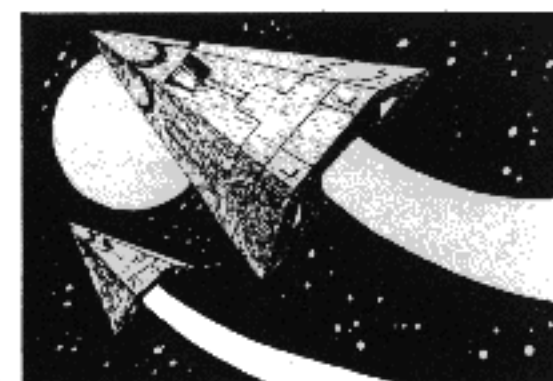
CARGO CAPACITY
10 TC

ARMAMENTS
Ergan laser

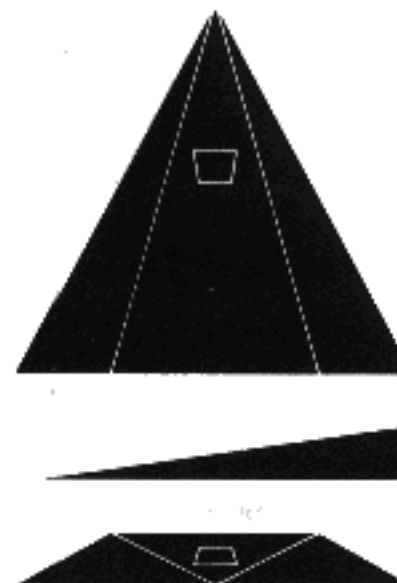
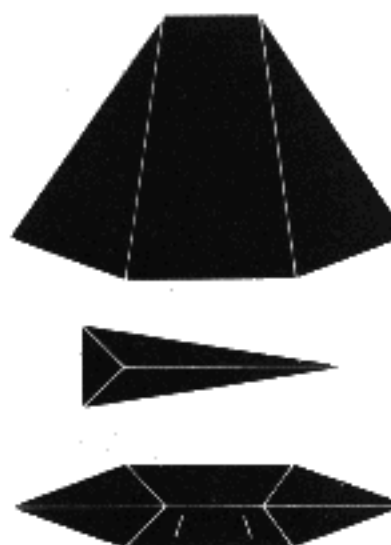
MAXIMUM VELOCITY
0.32

INSERVICE DATE
3110 AD
(Reorte Ship
Federation)

MANOEUVRABILITY
CF9



CREW NUMBER 1	HULL STRESS FACTOR TKi 10 C-Holding B100+
DRIVE MOTORS Seeklight HV Thrust	HYPERSPACE CAPABILITY No



MORAY STAR BOAT*

Developed initially as a submarine flyingboat, Marine Trench Co. soon saw the possibilities for extending their operations into space and the Moray SFB became the 'Star Boat' after its ingenious adaptations were completed. Aquatic space-faring races are the main users of this multi-purpose vessel, whose hull is able to withstand the pressures of depths of up to 5500 fathoms. Standard fittings include: highpower seal locks, 2 torpedo tube/single missile pods and flood-lock cabins for subaquatic life-forms.

DIMENSIONS
60/25/60 ft

CARGO CAPACITY
7 TC

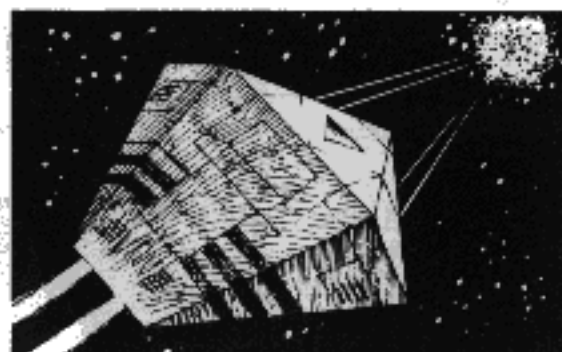
ARMAMENTS
Geret Starseeker
Missile System

MAXIMUM VELOCITY
0.25

INSERVICE DATE
3028 AD

MANOEUVRABILITY
CF4

CREW NUMBER
6



DRIVE MOTORS Turbulen Quark Re-charger Mode 1287	HYPERSPACE CAPABILITY Yes
HULL STRESS FACTOR T Ko 24	

PYTHON

One of the larger trading vessels manufactured in Inera Orbit Space by Whatt and Pritney ShipConstruct. Cabin accommodation is cramped and spartan in contrast to facilities for cargo and 'alien environment' transport. Though slow and ponderous, the craft has powerful CC-Voltaire shields and Volt-Variscan Pulse lasers, earning it the nickname of the 'space porcupine'. Not commonly attacked by pirate ships, but a popular craft for freebooters, usually used as a way-station and storage hulk.

DIMENSIONS
130/40/80 ft

CARGO CAPACITY
100 TC

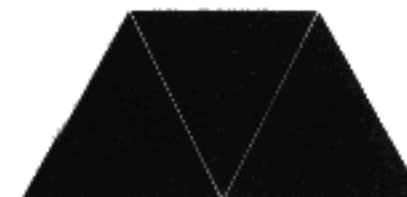
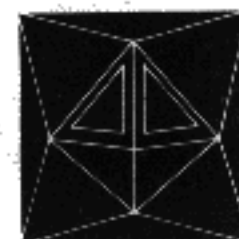
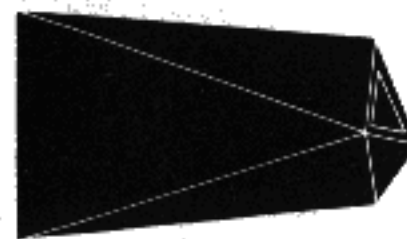
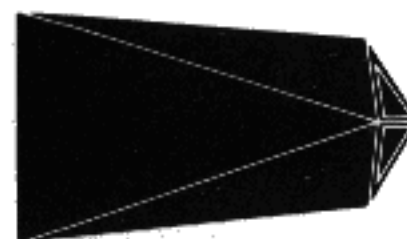
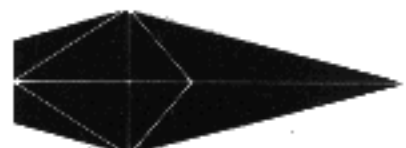
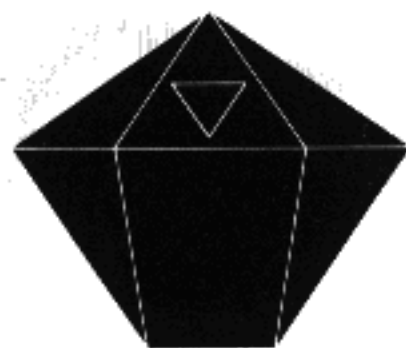
ARMAMENTS
Volt-Variscan
Pulse Lasers

MAXIMUM VELOCITY
0.20

INSERVICE DATE
2700 AD
Whatt and Pritney
ShipConstruct

MANOEUVRABILITY
CF3

CREW NUMBER 20-30	HULL STRESS FACTOR T(ensman) YO 20 C-Holding K21-31
DRIVE MOTORS 4 C40K V Ames Drive Exlon 76NN Model	HYPERSPACE CAPABILITY Yes

**ORBIT SHUTTLES***

These unarmed and often unmanned craft are built under license in every planetary system. Based on a prototype developed by Saud-Kruger AstroDesign, they are used for cargo ferrying between planet and space station, but can be modified to hospital ships, or orbiting prisons. Favourite targets for small-time criminals, because of their instantaneous release of cargo canisters, they are often followed by single fighter patrol ships.

DIMENSIONS
35/20/20 ft

CARGO CAPACITY
60 TC

ARMAMENTS
None

MAXIMUM VELOCITY
0.08

INSERVICE DATE
2856
Saud-Kruger Astro
Design

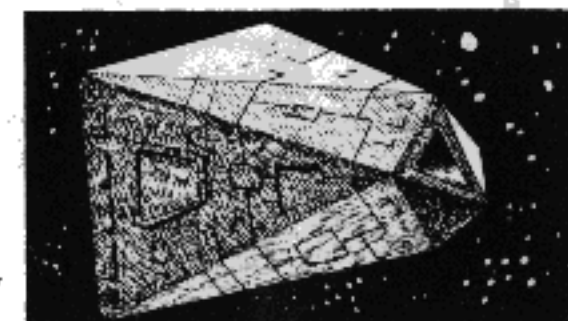
MANOEUVRABILITY
CF4

CREW NUMBER
6

DRIVE MOTORS
V & K 20.20
StarMat drive

HULL STRESS FACTOR
TKo 28

HYPERSPACE CAPABILITY
No

**SIDEWINDER SCOUT SHIP**

Designed by Faulcon de Lacy and built in the Onrira Orbital Shipyards by Spalder and Starblaze Inc to Galactic Navy specifications for a multi-purpose support craft. Mainly used for atmosphere and planetary surface scouting, but extensively too for city-strafting, reconnaissance and infantry air support (and by pirates who favour speed and elusiveness, its primary advantage). Has some interspatial capability, not including hyperspace, and must be carried through hyperspace by jump-capable vessels. Hull is too small for the installation of fuel scoops, or more than one missile pod.

DIMENSIONS
35/15/65 ft

CARGO CAPACITY
None

ARMAMENTS
Dual 22-18 lasers
Seeker missiles

MAXIMUM VELOCITY
0.37

INSERVICE DATE
2982
(Onrira Orbital/
spalder & Starblaze)

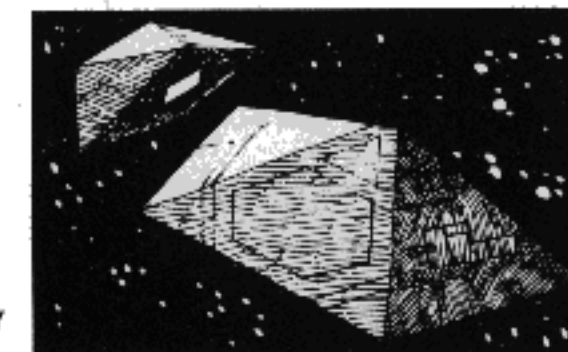
MANOEUVRABILITY
CF9

CREW NUMBER
1

DRIVE MOTORS
de Lacy Spin Ionic MV

HULL STRESS FACTOR
Not available
C-Holding C50

HYPERSPACE CAPABILITY
No



THARGOID INVASION SHIPS

Though most of the Thargoid Space Fleet is currently engaged by the Galactic Navy in Intergalactic Space, a few of the smaller battle ships make occasional sorties into Human Space. These ships are extremely fast for their size and invariably have ECM Systems (this was originally a Thargoid invention to counter Navy missiles, subsequently copied by the Navy from captured Thargoid ships).

Additionally, most Thargoid battle ships carry a few small remote-controlled ships, each equipped with a single pulse laser. It is rumoured that the Galactic Navy are designing their own remote-controlled fighter, and will pay well for Thargoid ones to study.

DIMENSIONS
180/40/180 ft

ARMAMENTS
Widely varying.
Mountings available for most systems

MAXIMUM VELOCITY
0.20 LM

INSERVICE DATE
Uncertain

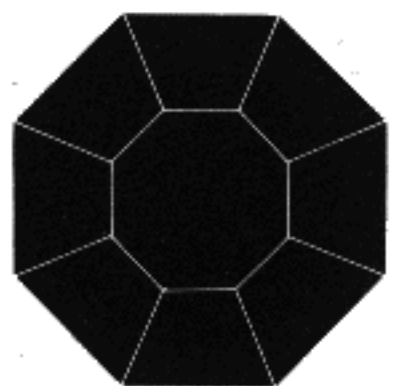
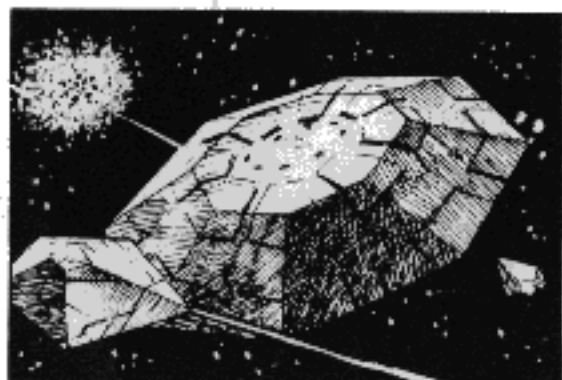
MANOEUVRABILITY
CF6

DRIVE MOTORS
Thargoid invention

HYPERSPACE CAPABILITY
Yes

CREW NUMBER
150

HULL STRESS FACTOR
Uncertain

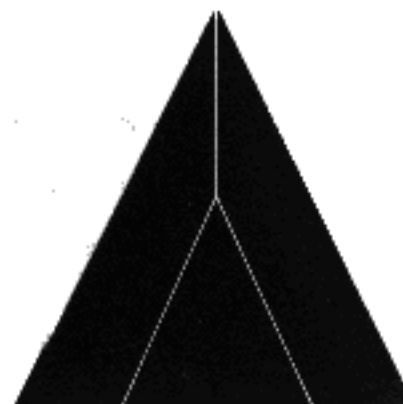
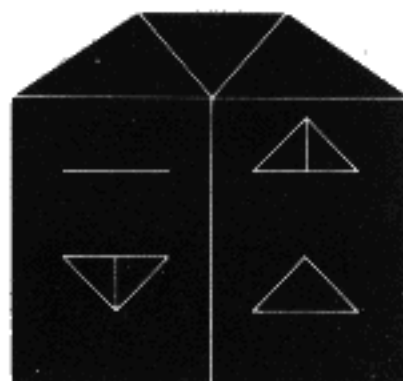


TRANSPORTER*

The Lakon Spaceways MC15 QuikTransport Shuttle is the most commonly encountered intermediate range shuttle, with a range of 0.1LY and a full HiGrav Loading facility. It can carry up to 100 passengers, and has a cargo capacity of 10 tonnes undefined bulk. Can land on asteroids, space stations, and can skim atmosphere, and touch down on land surfaces and all liquid surfaces except acid.

DIMENSIONS
35/10/30

INSERVICE DATE
Unknown, but probably pre-2500 AD. Known prototype built on SpaceLink Shipyards, Mars orbit (Old Earth).



VIPER (POLICE SHIP)

Small, highly manoeuvrable short range 'hunter-killer', the Viper was specifically designed for GalCop Space Policing purposes by Falcon Manspace and are built under licence on all Medium Tech worlds. The Viper is a single pilot craft, but can carry up to ten humanoid passengers. It has no cargo space, but has a 'tug' capability, and can tow a ship of up to 140,000 MTS mass (including the Cobra Mk 3). This popular ship is also carried by large freighter convoys, for defensive purposes.

DIMENSIONS
55/80/50 ft

CARGO CAPACITY
Zero

ARMAMENTS
Ingram MegaBlast Pulse Laser
Seeker missiles

MAXIMUM VELOCITY
0.32 LM

INSERVICE DATE
2762 AD (Falcon Manspace, Reorte)

CREW NUMBER
1 (up to 10)

HULL STRESS FACTOR
Varies

MANOEUVRABILITY
High (CF 7.4)

DRIVE MOTORS
de Lacy Super Thrust VC10

HYPERSPACE CAPABILITY
No



WORM CLASS LANDING CRAFT*

A small landing craft carried on larger ships, for use as either a lifeboat, or for landing parties. Lightly armed, the Worm is occasionally employed as an attack and/or decoy craft during combat conditions. Manufactured to specific requirements dependent upon the Mother Ship, the Worm is highly adaptable.

DIMENSIONS
35/12/35 ft

CARGO CAPACITY
None

ARMAMENTS
Ingram Pulse laser

MAXIMUM VELOCITY
0.23

INSERVICE DATE
3101 AD

MANOEUVRABILITY
CF6

DRIVE MOTORS
Seeklight HV Thrust

HYPERSPACE CAPABILITY
No

CREW NUMBER
2

HULL STRESS FACTOR
Tkl 10

