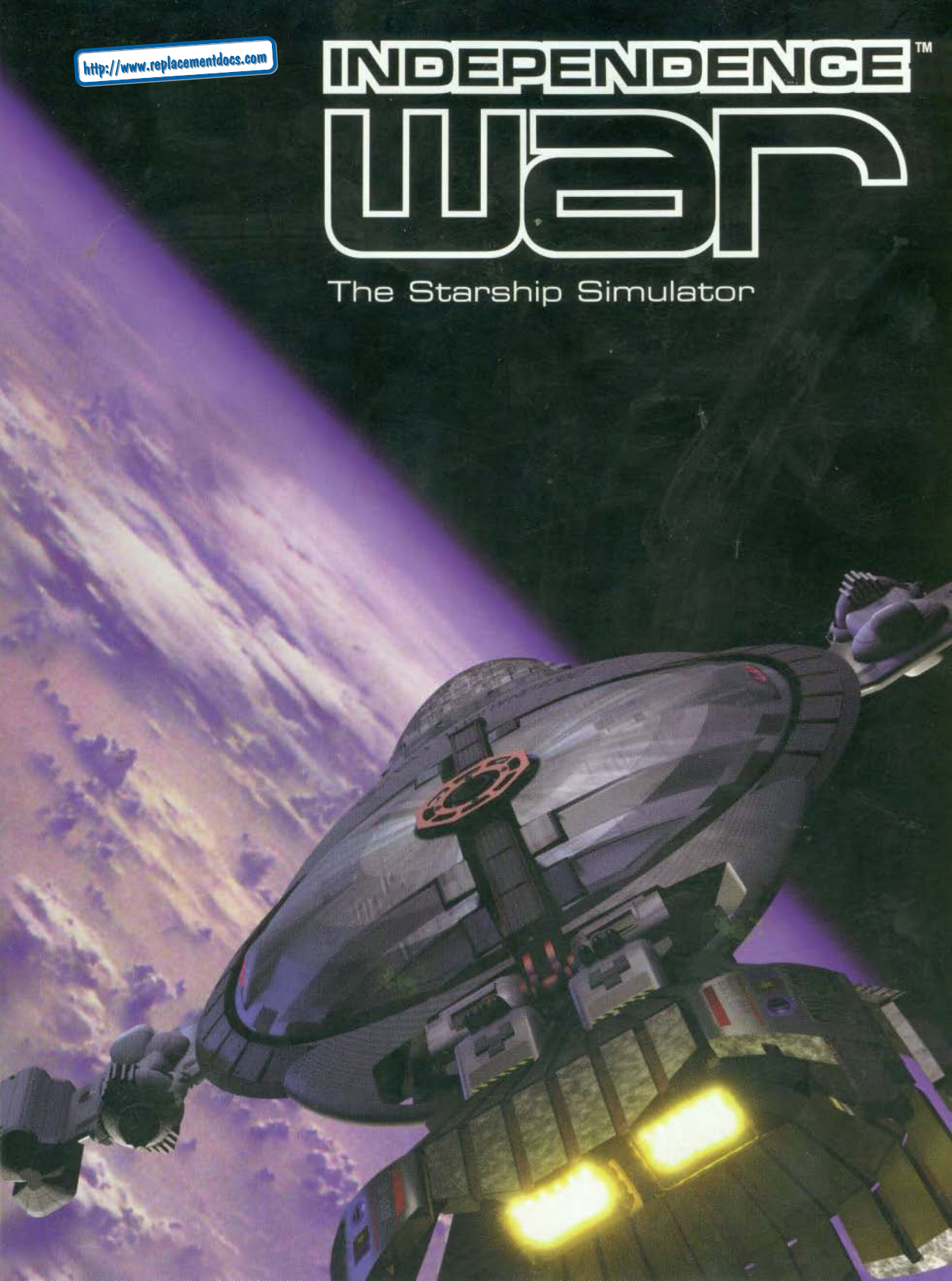
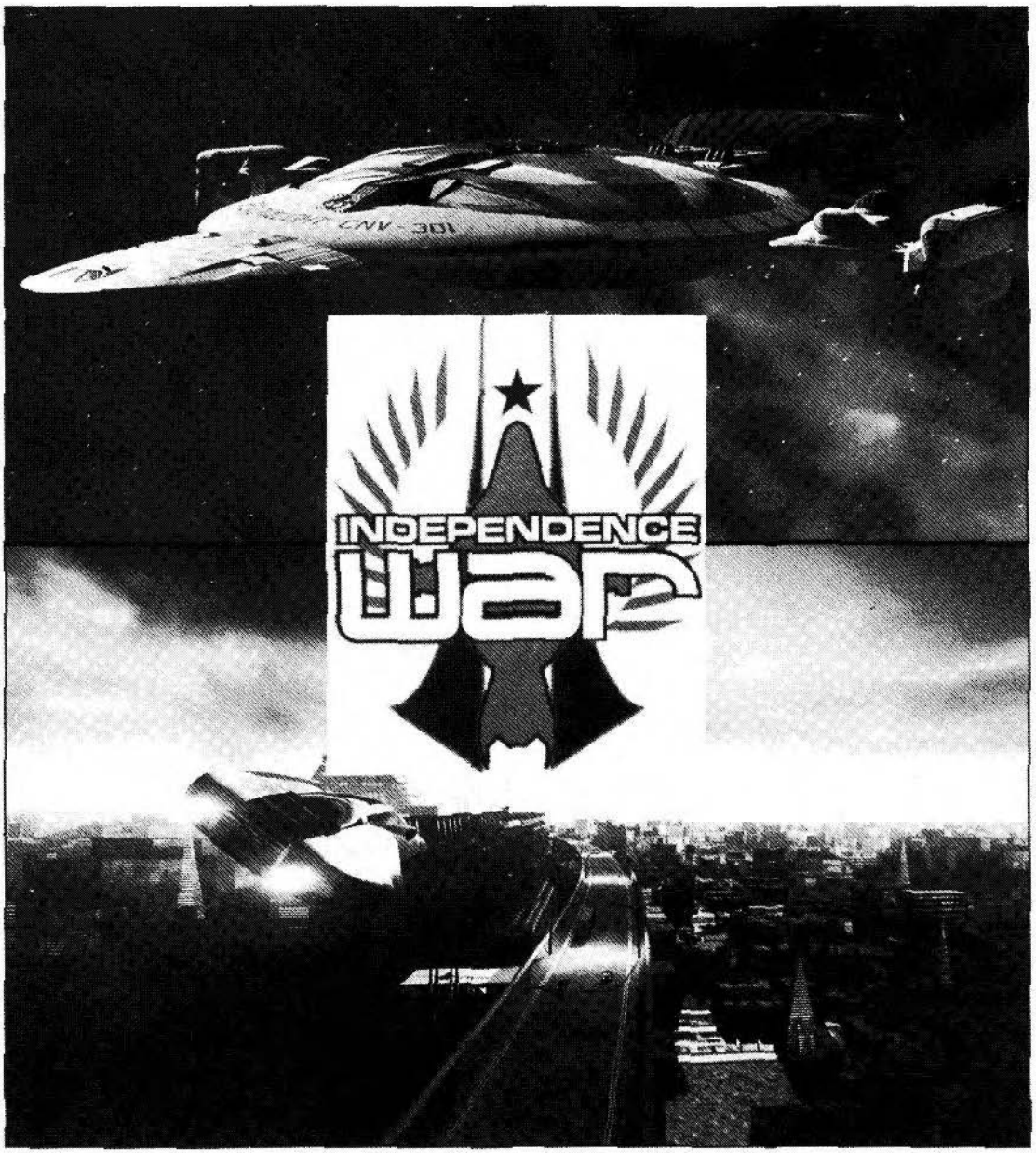
INDEPENDENCE™ war

The Starship Simulator





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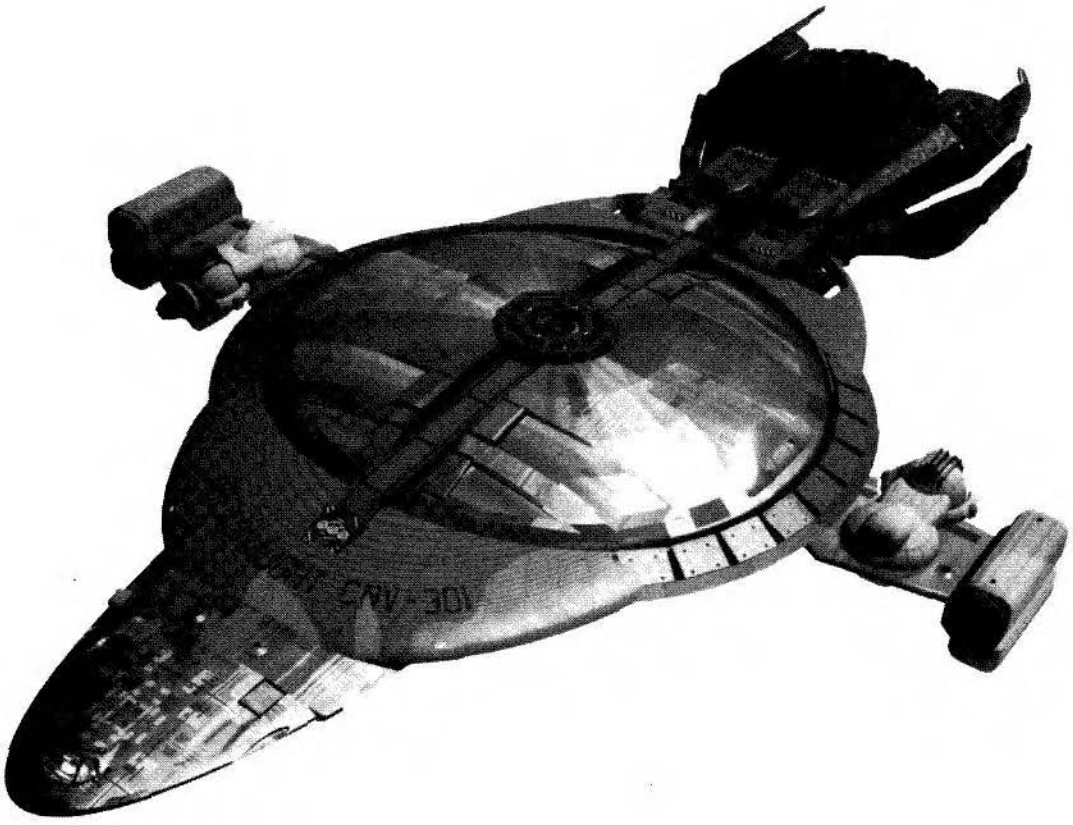

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PUBLISHER

Infogrames Entertainment, Inc.
333 W. Santa Clara St., Suite 820
San Jose, CA 95113
(408) 289-1411

Website: http://www.infogrames.net
http://www.independencewar.com

DEVELOPER

Particle Systems Ltd.
Sheffield
England
Email: info@particle-systems.com
Website: http://www.particle-systems.com

CAUTION

Mishandling can damage the CD-ROMs that contain *INDEPENDENCE WAR*. We recom mend that you perform a full installation of the game to your hard disk and make a back-u copy using back-up software.

EPILEPSY WARNING

A very small percentage of individuals may experience epileptic seizures when exposed to certain light patterns or flashing lights. Exposure to certain light patterns of backgrounds on television screen while playing computer games may induce an epileptic seizure in these individuals. Certain conditions may induce undetected epileptic symptoms in persons who have no history of prior seizures of epilepsy.
If you or anyone in your family has an epileptic condition, consult your doctor prior to playing. If you experience any of the following symptoms *while playing a computer game: dizziness, altered vision, eye or muscle* twitches, loss of awareness, disorientation, any involuntary movement, or convulsions IMMEDIATELY discontinue use and consult your doctor.

PACK CONTENTS

This pack contains:
3 CD ROM Disks
This Manual
A keyboard overlay
Starship recognition chart

Please remember to return your registration card and fill in the questions. The information will help us in developing future games you want to see.

QUERIES

If you should find either the program or the documentation unsatisfactory in some way, please write and let us know.
Write to:
Infogrames Entertainment, Inc.
333 W. Santa Clara St. Suite 820
San Jose, CA 95113

A THANK-YOU FROM THE DEVELOPERS

Thank you for buying *INDEPENDENCE WAR*. This space simulation title is the best title we could make and has taken more than 3 years to complete.
Independence War is a labor of love. The production team wanted to create the ultimate space-sim; one which would deliver all the movement, color and action of the great space epics. We sincerely hope that you enjoy the game and can experience all the detail, design and effort invested in it.

UNIQUE FEATURES OF INDEPENDENCE WAR

Comprehensive Starship Simulator

The player is given a fully working space ship in a box. The 160-meter long 'Dreadnaught' class, corvette is included free with every purchase. All shipboard systems are completely modeled; from power-generation to particle cannon, thrusters to shields.

Action

As Captain, the player will take the ship into battle against enemy fleets in hostile skies. As pilot, the player will weave through oncoming fire - taking the ship right into the heart of the action. As gunner, the player will launch missiles against multiple targets and fire upon individual systems on enemy ships. Finally as Engineer, the player will have to sort out the damage done to the ship in all of the above.

Exquisite Intro and in-game CGI sequences

The pre-rendered CGI in the game sets the scene for the action but also underlines key events in the play and provides rewarding payback sequences. All of the CGI in this title was generated not at "game-quality" but TV/Movie quality. Judge for yourself.

Fully free-roaming state of the Art 3D graphics engine

This title features a state of the art 3D polygon engine that offers the player complete control and total immersion in the action. Offering both software and 3Dfx modes, the graphics engine delivers breath-taking real-time imagery which look so good, it seamlessly blends with the pre-rendered sequences.

Story-driven missions

Rather than using "go-someplace-and-shoot-something missions" - as the game progresses, each mission forms part of a complex and rewarding story line. Successfully completing a mission often requires more than just a rapid-fire finger.

Advanced AI

A high level of enemy AI is used. Enemies are smart enough to have multiple objectives. They will identify and pick out weaker ships to attack. Enemies form themselves into squadrons which then attack en-masse.

WINDOWS 95 NATIVE

This is a Windows 95 / 98 native title.
The program will install and run under
the Windows 95 or Windows 98 operating system.
The program will not work under DOS.

HARDWARE REQUIREMENTS

To support this game your PC should have at least the following:

- Windows 95 installed
- Pentium 90 processor or equivalent (or higher)
- A display capable of displaying 640x480 resolution in 256 colors. Compatible with DirectX 5
- 80 Megabytes of available Hard disk space
- A sound system compatible with DirectX 5
- At least 16M of RAM
- A CD-ROM drive capable of a sustained transfer rate of 600K per second (Quad Speed)
- Microsoft's DirectX 5 or 6 installed (Supplied on CD1)

To play the enhanced 3Dfx version you should also have:

- Windows 95 or Windows 98
- A Pentium 166 or equivalent (or higher)
- 32M of RAM
- A 3Dfx Voodoo1 or Voodoo2 based video card
- Glide 2.43 (Voodoo1 Graphics) or 2.5 (Voodoo2) installed (Glide 2.43 supplied on CD1, Glide 2.5 should already be supplied with your Voodoo card drivers).

Note: Voodoo Rush is not supported. See the README on the game disc for more information on running this game with a Voodoo Rush board. Be sure to check www.independencewar.com for the availability of patches or upgrades. Windows NT is not supported.

HOW TO INSTALL INDEPENDENCE WAR

We have endeavored to make the installation of this game as simple and trouble-free as possible. Nevertheless we recommend that you follow these instructions and any you see on screen with care.

Configure your hardware

If you have used games under Windows 95 or Windows 98 before, you will already have configured your PC to use your joystick and any other game related hardware.

If you have not used a Windows 95 or Windows 98 game title before you may wish to do this before proceeding with the game installation.

Load the CD

Load the CD Number 1 intro the CD ROM drive of your PC. After a short delay the game launcher menu will appear, which allows you to install and run the game.

Click on the **Install Independence War** button and follow the loading instructions to install the game.

After installation click on the **Install DirectX** button. If you don't have DirectX installed, before you run the game. See **DirectX**, below.

See **Game Launcher Menu** for more details on the different controls on the game launcher menu.

DIRECTX

Windows 95 now has a number of extensions, called DirectX, which make it possible to make best use of your PC Hardware for playing games. *INDEPENDENCE WAR* uses the current version of DirectX (5) technology to do this. A full copy of DirectX 5 is included on the CD – you must have DirectX 5 or greater installed on your PC in order to run INDEPENDENCE WAR. If you can't remember if you have DirectX 5 installed, or if you think that you might have an older version of DirectX installed, and you are running Windows 95, choose to install DirectX 5 during the installation process.

INDEPENDENCE WAR may work with older versions of DirectX but some features, such as support of force-feedback joysticks will not work.

A new version of DirectX, version 6, will be available soon and is expected to be fully compatible with *INDEPENDENCE WAR*

DirectX is backwards compatible – so if you use any other games which also employ DirectX technology, they should still work fine.

Warning: Do not install DirectX 5 if you are running Windows 98. Windows 98 comes pre-installed with its own version of DirectX 5. Installing DirectX 5 on a Windows 98 installation may cause Windows 98 to function incorrectly.

I already have DirectX 5 or DirectX 6

In this case you do not need to install DirectX from the *INDEPENDENCE WAR* disk.

Warning: Do not install DirectX 5 if you already have DirectX 6 installed on your system, or you may get errors while running *INDEPENDENCE WAR* or other DirectX software.

What if I have an older version of DirectX?

INDEPENDENCE WAR may work with DirectX version 3, but certain features such as support of force-feedback joysticks will not work. We recommend you upgrade to DirectX 5 or DirectX 6.

What about DirectX 6?

DirectX 6 should be fully compatible with *INDEPENDENCE WAR*.

HARDWARE ACCELERATION

INDEPENDENCE WAR features both 3D Accelerated and Software graphics modes.

To use 3D accelerated mode you'll need a 3Dfx based Voodoo1 or Voodoo2 graphics card. No other 3D chipsets are supported at the time of writing.

The 3Dfx version features a fast smooth frame rate, many spectacular visual and lighting effects, and very high detail ships and space stations. Both Voodoo1 and Voodoo2 based cards are supported, with Voodoo2 offering an 800x600 screen mode.

The 3Dfx version requires Glide version 2.43 (Voodoo1) or 2.5 (Voodoo2) to be installed. You can find Glide v2.43 on CD1. If you have a Voodoo2 card, Glide 2.5 should be installed automatically with your Voodoo2 video drivers.

You don't need a 3D graphics accelerator card to play *INDEPENDENCE WAR*. To make the game as accessible as possible we wanted to produce a title which looked stunning on an unaccelerated PC. The software mode is based upon an advanced software graphics system, which does not require hardware acceleration to work, and produces fast, smooth graphics, with spectacular graphical and lighting effects even on relatively slow PCs.

SOUND

INDEPENDENCE WAR uses Direct Sound technology. Consequently the game supports and audio hardware which works under Windows, and which have DirectX 5 supported drivers.

PERFORMANCE ISSUES

We have endeavored to get the performance of *INDEPENDENCE WAR* to be as high as possible, and make the game playable even on modest hardware. The game should produce smooth animation and movement even on slower hardware. But these are some issues to note.

The game likes memory. If your machine has less than 32M of RAM (3Dfx Mode) or 16M (Software Mode) you may experience problems as the game swaps memory to disk. If the disk light on your machine is on while the game is running, you need more RAM. Obviously it is a good idea if the game is the only program running under Windows. If you have other programs open, these will eat memory and processor time.

When streaming video from the CD, you should see smooth animation and hear unbroken sound. If you're playing the game in 3Dfx mode and the game slows down considerably when there's a lot of action on screen, consider turning off HiDef shapes in the game options menu, or moving the *Detail Cutoff point slider to the left.*

THE README FILE

The CD-ROM contains a document outlining any last-minute changes and any errata. You can also visit our website: **http://www.particle-systems.com** that outlines the latest news about this title. There are buttons to access both of these features on the **Game Launcher Menu**.

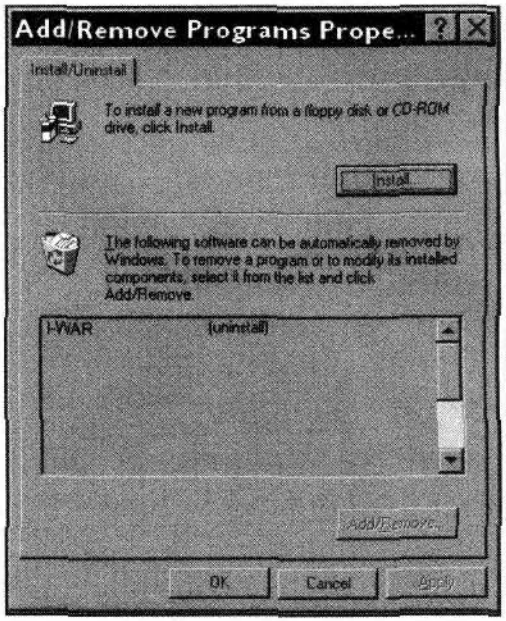
UNINSTALLING -*INDEPENDENCE WAR*

INDEPENDENCE WAR uses Install Shield. This technology tracks all modifications made to your Windows set-up when installing a program. Install Shield will reverse those modifications when you elect to uninstall.

We recommend always using this method to remove *INDEPENDENCE WAR* and all other programs from your system rather than directly deleting the files from your hard disk.

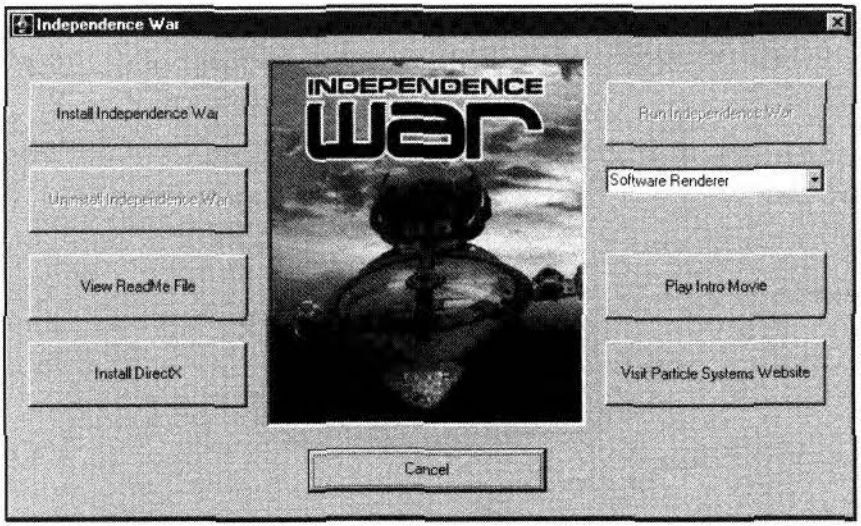
To remove *INDEPENDENCE WAR* go the Windows 95 control panel. Select the ADD / REMOVE programs option, and make sure that the tab marked

Install/Uninstall is selected. Locate *INDEPENDENCE WAR* in the scroll box and then press the Add / Remove button. This will delete all files on your hard disk and change any modifications made to the registry.



GAME LAUNCHER MENU

The game launcher menu appears whenever you load CD1. It has several controls, some of which won't be selectable depending on if the game is already installed or not.



Control	Function	When available
Install *INDEPENDENCE WAR*	Installs the game from the CD to the Hard Disk	When game isn't already installed
Uninstall *INDEPENDENCE WAR*	Removes the game from the Hard Disk	When the game is already installed
View ReadMe file	Displays the ReadMe.txt file on CD1 that contains last minute information about the game and documentation	Always
Install DirectX	Installs or updates DirectX 5 on your system. (See DirectX section)	Always
Run *INDEPENDENCE WAR*	Runs the game in the 3D mode you've selected (See Renderer Mode, below)	When the game is already installed
Render Mode (Selection Box)	Allows you to choose the 3D graphics mode of the game. Three Modes are supported: Software Renderer (640x480) 3Dfx Voodoo1 Renderer (640x480 – Also compatible with Voodoo2) 3Dfx Voodoo2 Renderer (800x600)	Always
Play Intro Movie	Plays the Intro Movie off CD1. Requires ActiveMovie or other AVI video playback drivers.	Always
Visit Particle Systems Website	Loads your Web Browser (if installed) and goes to the particle systems website.	Always
Cancel	Quits the Game Launcher Menu	Always

Joysticks, Throttles, and Rudder pedals

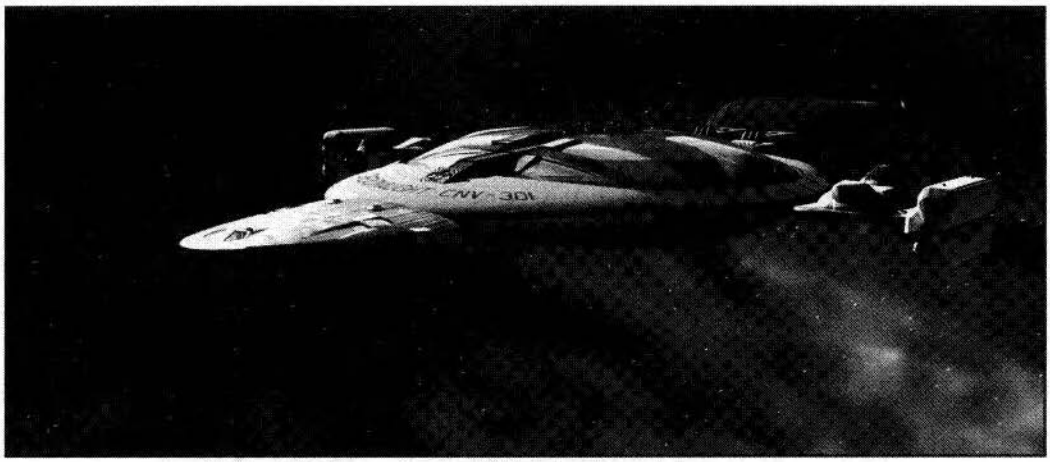
INDEPENDENCE WAR uses the joystick interface built into Windows 95 and Windows 98.

Older DOS based titles often featured a joystick installation and calibration process. This is not included in *INDEPENDENCE WAR* because you now install and calibrate your joysticks, throttles, and rudder pedals though the Windows 95 / Windows 98 control panel. If you have not done this, you should consult your Windows 95 / 98 and Joystick manuals.

By using DirectX 5, *INDEPENDENCE WAR* supports the latest force-feedback joysticks. This technology enhances your playing experience by dynamically altering the resistance of the joystick depending on the game circumstances. In *INDEPENDENCE WAR* the stick will even jolt in the right direction as the ship takes hits.

See the individual *INDEPENDENCE WAR* workstation descriptions and guides for more detailed information about joystick control.

Certain joystick configurations are pre-programmed and stored on the CD. Details of these can be found in the README.TXT file.



QUICK START GUIDE

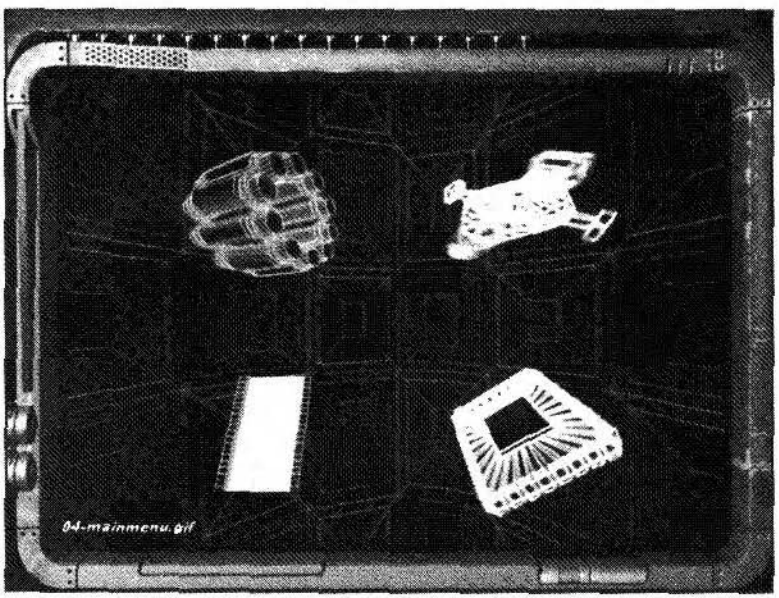
GETTING STARTED

Before you read this entire manual, you'll probably want to try the game out. There are two ways you can get quickly into the game.
They are:

1. QuickStart 1: Start the game proper by creating a character and trying a simple mission.

2. QuickStart 2: Run immediate action mode – to get into a space battle instantly.

We warn you, without adequate training you will not last long!



QuickStart 1: Start the Game Proper

If you start to play the game itself, you'll be treated a little more gently, with some introductory missions. We would suggest that the first missions you attempt are the basic training missions.

1. Run *INDEPENDENCE WAR* by double clicking the appropriate shortcut to Dreadnaught from your Windows 95 Desktop, or by using the Game Launcher Menu on CD1.

2. You will be presented with the *INDEPENDENCE WAR* main menu screen - this screen shows four moving 3D wire-frame shapes (ICONS).

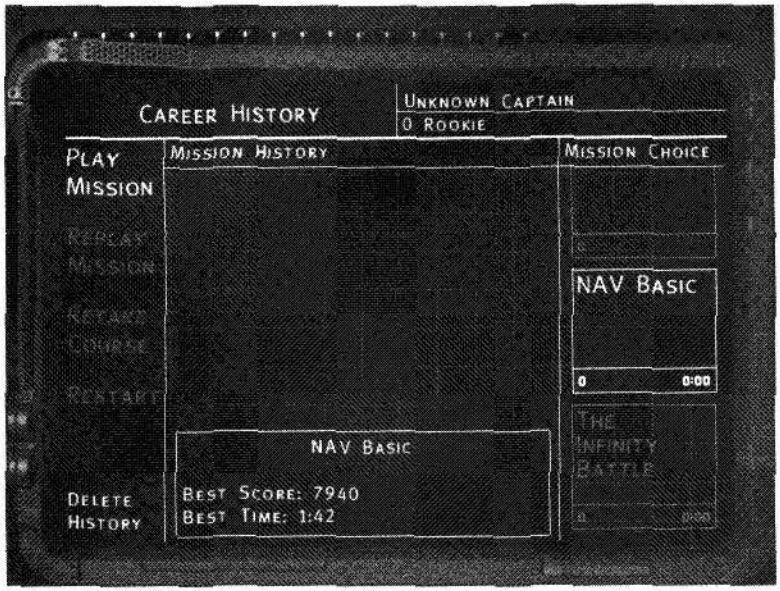
3. Select the red, cylindrical icon on the top left, which represents the character roster.

4. The roster icon holds six different characters. When the game starts all character slots will be empty. (Shown as UNKNOWN CAPTAIN)

5. Click on the NEW CAPTAIN Box and type a character name in the selected slot.

6. Choose a gameplay mode: Simulation for a realistic flight mode (Recommended), or Arcade for an easier, but much less realistic flight mode. The screen will change, showing the character history screen.

Note: This guide and the main manual assume Simulation mode is being used.



This screen presents you with the personal history of the character and will record each mission the character undertakes. The screen shows:

- Details of the character across the top of the screen.
- The history of the character and a list of the mission undertaken, in the central (scrolling) portion of the screen.
- New missions which can be attempted, on the extreme right of the screen.
- And finally, a menu of commands on the left of the screen.

7. Finally to enter a mission, select training mission NavBasic by clicking on the Mission box and then pressing PLAY MISSION

QuickStart 1: Playing the NAV BASIC Mission

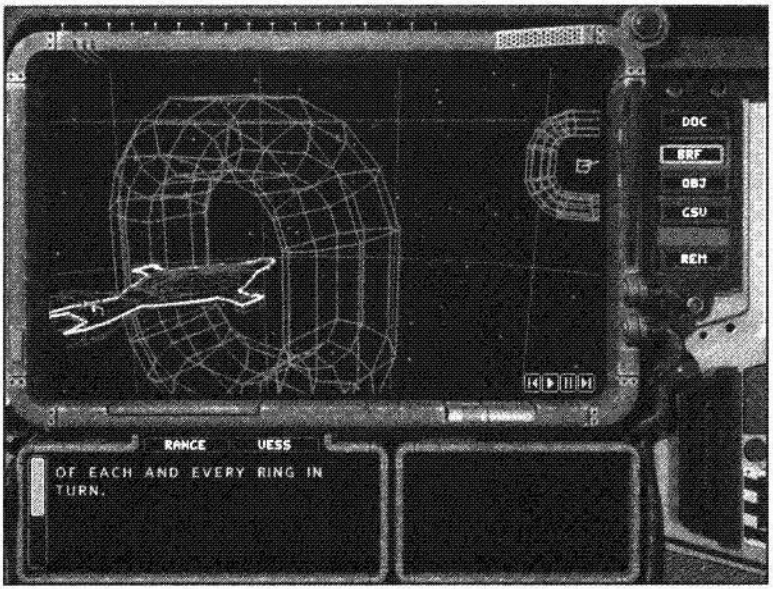
NavBasic is the first mission you should try. It sounds easy: Fly the ship through a series of hoops. Anyone can do it in 5 minutes...but try completing it in less than 2 minutes. The current record is 1minute 1 second!

This is what you have to do to complete the mission:

- Read the Briefing
- Operate the ComArm
- Select The Pilot View
- Figure out yoke and throttle control
- Learn to read the head-up
- Complete the course

Briefing

Every mission in *INDEPENDENCE WAR* has a multimedia-briefing document that explains the objective of the mission.



The briefing screen on the command console explains the purpose of the mission.

The NavBasic mission briefing shows in words and pictures how to complete the exam.
You can escape from a briefing document at any point by pressing the <<Escape key.>>

Com-Arm

As the mission starts your instructor-pilot in another ship is talking to you over an audio-only radio channel. A swing-on communication device called a ComArm handles all 2-way communication. The screen on the ComArm displays who is currently talking. In this case it will show the Instructor's ship.

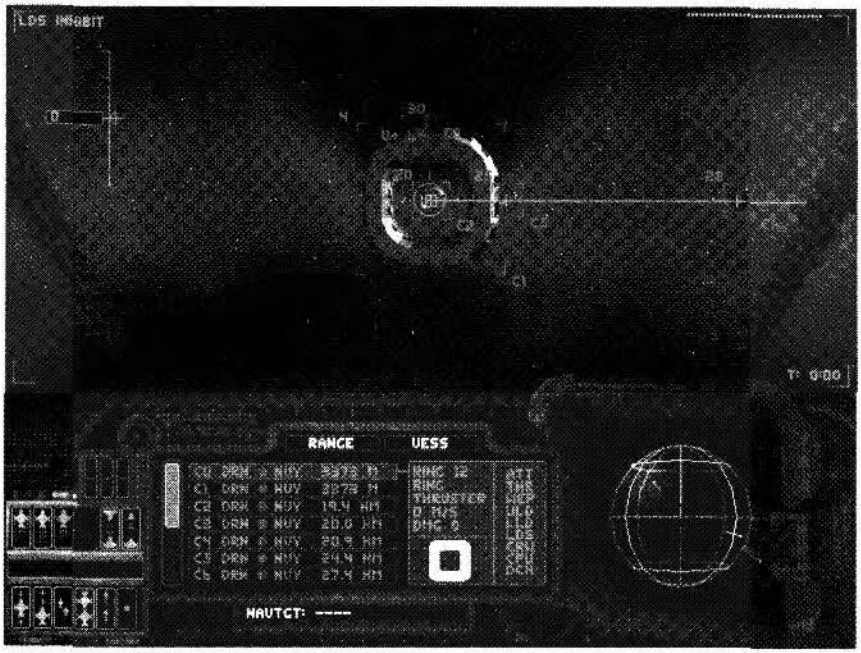
Using the ComArm you can talk back to the instructor pilot by clicking on responses with your mouse.

To get rid of the ComArm, press <KEY Shift V> or click on the circular feature on the top left of the ComArm screen.

Selecting views

INDEPENDENCE WAR can be played from any of 4 bridge workstations on the ship. We would suggest the best seat for playing the NavBasic mission is the pilot's seat. To get to the pilot seat quickly press <KeyF2>.

You should see a view like this:



Attitude Control: Turning the ship

By default the *INDEPENDENCE WAR* control system is very similar to how a conventional flight-simulator works. We would recommend that you use a joystick to play this game. Moving the joystick or control yoke from side to side produces a yaw maneuver in the ship.

Pushing the stick forwards and back produces a pitch maneuver.

If you have rudder-pedals or a stick with built-in twist for rudder then this will allow the ship to roll. Unlike an aircraft a spacecraft does not need to be moving forwards to perform turns. You might want to practice turning the ship before starting your run.

The Dreadnaught is a heavy warship. She will not turn like a fighter! In turning her you will have to fight against momentum. If your attitude thrusters are damaged, she will not turn at all!

You should point the ship at the center of the first ring.

Thruster Control: Moving forward and backward

The ship can move in any axis and be piloted in several different modes of flight.

The most straightforward flight mode (assisted mode) allows the pilot to control the ship in a manner very similar to a conventional aircraft; the ship will usually be moving forwards (in the direction it is pointing). This is the most useful flight mode and allows tremendous control for maneuvering and combat.

Zero the throttle to activate it, then push the throttle forward to set the forward speed.

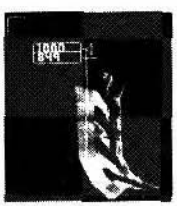
If you are using keys, press and hold the <KEY + key> to increase the set speed and use <KEY –> to reduce it.

If you are pointing at the first ring, you should pass through the ring and should hear the instructor pilot confirm that the timer is now running.

Understanding the Nav Console & Head-up display

The head-up display presents the pilot with the most vital information needed to fly the ship. These are the main concepts you'll need to understand:

- Speed Indicator
- Reference Grid
- Contact Boxes
- Nav Contact
- Center Indicator

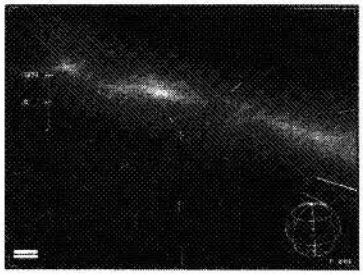


Speed indicator

This shows two speeds:

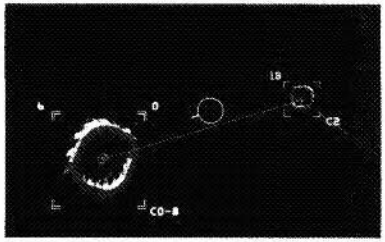
First, your actual forward (z-axis) rate of motion in Meters-per-second. (ms^{-1})
And second, it shows the set-speed selected from the throttle or keys.
In this shot we see the player has selected a set-speed of 1000 meters per second but the ship is only travelling at 849ms-1.

Reference Grid



The head-up display projects a regular grid of lines into the pilot's field of view allowing the pilot to actually see space. These virtual points present a visual reference of static points allowing the pilot to visually judge speed and distance. In deep space - with no other visual reference features - this system is essential.

Contact Boxes & Headup Center Indicator



The onboard computer logs all space ships, weapons and other objects as contacts. To aid navigation the head-up tracks all contacts, and will mark a contact on screen with a box.

One contact is called the current-contact. The current-contact is marked with a double box. The head-up display makes it easy to find the current-contact. In the center of the screen is the center-indicator. A small stalk points from the circle to the current-contact, even if the object is off screen.

To complete the slalom course you'll need to identify the next ring to fly through. The head-up display will automatically select the next ring as the current-contact; guiding you to the next point on the course.

Completing the Course

You should now be able to complete the course, the only thing stopping you are your skills as a pilot. If you hit a ring you might destroy your ship – or you might damage it. If you do get damaged, you might have to wait for the ship to be repaired before proceeding. The lesson here is don't crash. You can also get disoriented and lose the location of the next ring. If you do, follow the stalk on the center indicator to find the next ring.

To pass the exam you will need a time of less than <<3 Minutes>>
Line-up is essential. You should always aim to be on a path that passes through the center of the next ring. Going through at a shallow angle, or last minute changes in direction will usually result in failure. Remember the ship has inertia and will take time to adopt a new course.

Hints for improving your Time in Nav Basic

For a first attempt, any time under 4 minutes is OK. For advanced players: 2 minutes is a more respectable performance.

To get this sort of speed the throttle should be at max (1000ms-1) for almost the entire course and you should use forward speed over-ride key <<A>> to go faster still on the straights.
When turning at speed the mass of the ship will naturally want to carry on moving with the same velocity. The ship's computer will use thrusters to prevent this. The belly thrusters (pointing down) are the strongest – so when drifting (skidding) turn the ship so that the belly thrusters are pointing in the direction of the drift.

This means that you should be pulling back on the stick to do a turn, rather than pushing forwards or yawing.
The crew will thank you too – it means they are pulling positive G through turns.

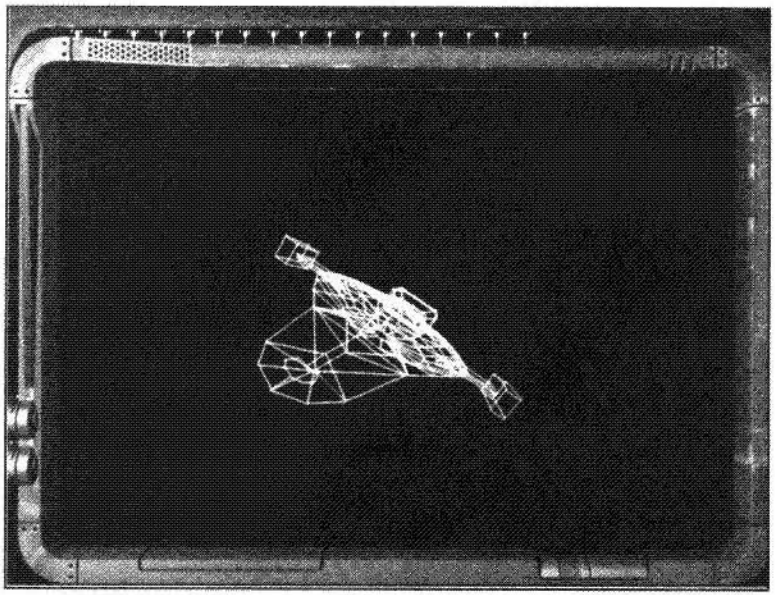
QuickStart 2: Immediate Action

The game includes an immediate-action mode, which drops you right in the middle of a never-ending space battle. If you survive here for more than a few minutes, you are doing well! This feature is just for fun. Your performance will not influence the outcome of the game, and any score you achieve will not be included in the main part of the game.

1. Run *INDEPENDENCE WAR* by double clicking the shortcut to Dreadnaught from your Windows 95 Desktop.

2. You will be presented with the *INDEPENDENCE WAR* main menu screen - this screen shows four moving 3D wire-frame shapes (ICONS).

3. To select the instant action mode, click on the wire-frame spacecraft on the main menu screen (top right.)



QuickStart 2: Playing the "Infinity War" mission

QuickStart 2: Navigation: Moving the ship

You'll need to figure out how to fly the ship. Everything that applies to the above (Nav Basic) applies here. So you should read the above section to learn how to control the ship.

QuickStart 2: Combat: Using Weapons

This section deals with the using weapons. The weaponry system concepts are very simple. It uses a single fire button and a single designated target.

To fire on an enemy ship, designate a target and press the fire button.

In a more general context the process is:

1. Select the correct weapon system. (Either a cannon or missile)
2. Designate the appropriate target. Use the T key or Joy button 2
3. Fire the weapon at the target.

Combat Functions (Basic)

Function	Key	Joy
Designate the central contact as Target	T	Joy Button 2
Fire Cannon or Missile	SPACE	Joy Button 1
Select Cannon Weapon	Enter	Joy Button 3
Select Missile Weapon	Backspace	Joy Button 4

QuickStart 2: Weapons: Designating targets

Use the T key to designate a ship as your target. When you designate a ship as a target you should see the double line contact box and crosshair lock onto your selected target. This function will lock onto the contact closest to the center indicator.

QuickStart 2: Weapons: Selecting Cannon

Select PBC Cannon by pressing <<ENTER>> or joystick button <<Joy Button 3>>

QuickStart 2: Weapons: Firing Cannon

The ship's cannon are mounted on gimbals and swivel. The computer will assist you in aiming at the selected target. Fire the cannon using the key <<SPACE>> or the Joystick <<Joy fire 1>>

QuickStart 2: Weapons: Using Missiles

To fire a missile at a target, select missiles, by clicking on the key <<Backspace>> or on the joystick button <<Joy Button 4>>. Then use fire to launch it. <<Space>> or <<Joy button 1>>. The status of your missiles in-flight will be displayed on your head-up display.

QuickStart 2: Summary

The Instant action feature has been added to the game for your amusement. You cannot win it. Nor will your performance alter your in-game score. However, it is the quickest way of getting to see some combat and can be a lot of fun.

INDEPENDENCE WAR: The Story

INDEPENDENCE WAR: The Story

"Those who cannot remember the past are condemned to repeat it."

George Santayana (1863–1952), U.S. philosopher, poet. Life of Reason, "Reason in Common Sense."

"But what experience and history teach is this—that peoples and governments have never learned anything from history, or acted on principles deduced from it."

Georg Hegel (1770–1831), German philosopher. The Philosophy of History, Introduction (1807).

The Past

As in the past, the available resources for human expansion started to run thin. And as in the past, the pressure for resources forced mankind to push back the frontier of Space much like the frontiers of the past. Earth was hungry. Displacement technology appeared just in time to permit exploitation of the Solar system and man's first tentative visits to new stars. As before, new communities of pioneers were established in these harsh new lands to oversee the exploitation of resources. But like before, it was not long before the citizens of these colonies started to wish for more...

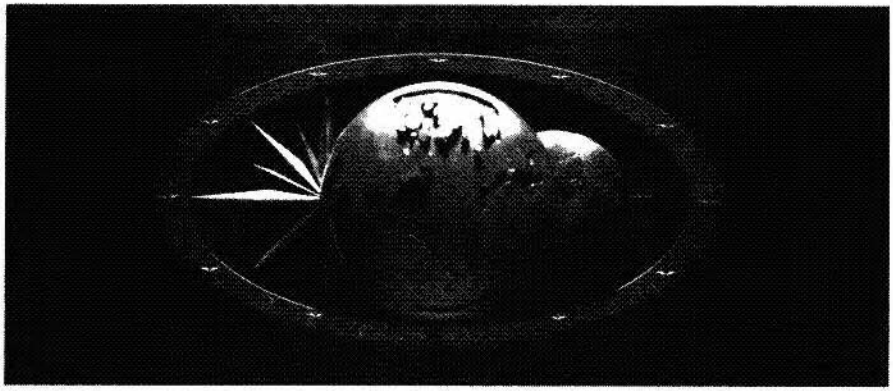
The Present

For more than a century, the interests of the Earth have clashed bitterly with the interests of the colonies. The feud has evolved into a never-ending guerrilla war in Space between two sides:

The Commonwealth

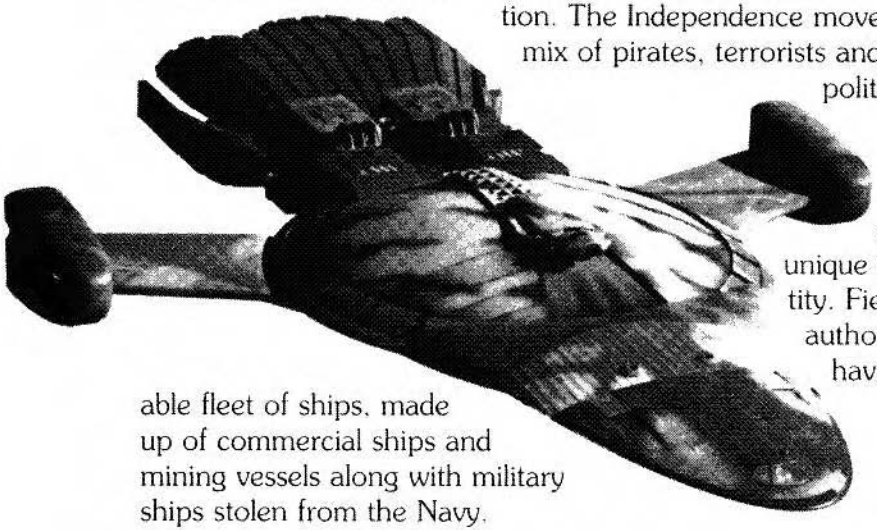
The Earth and its colony stars constitute the Commonwealth; a power bloc, which attempts to maintain stability and unity. The Commonwealth

has a massive space-going Navy. The Commonwealth Navy ships patrol space in an attempt to maintain order.



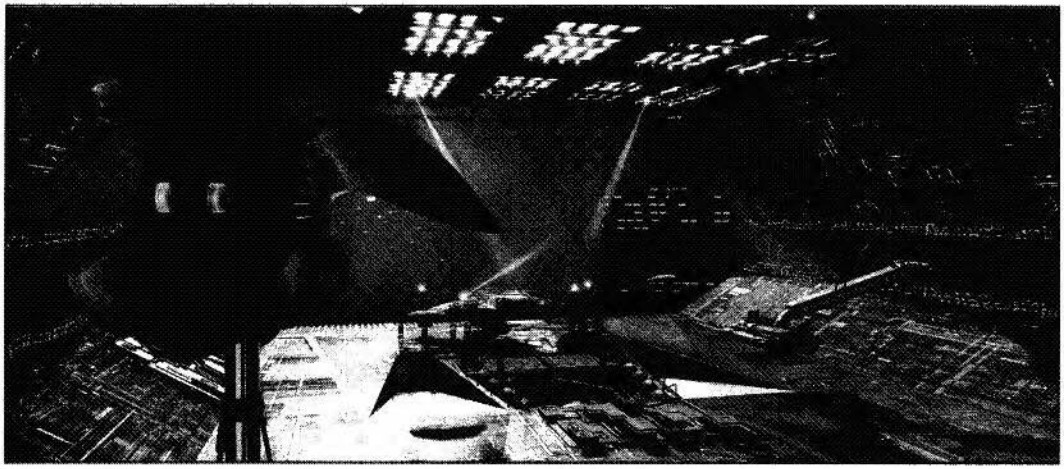
The Indies

The Indies are the manifestation of the colonists wishes for self determination. The Independence movement is a bizarre mix of pirates, terrorists and an underground political organization.



Over the years the Indies have established a unique culture and identity. Fiercely defiant of authority, the Indies have built up a sizeable fleet of ships, made up of commercial ships and mining vessels along with military ships stolen from the Navy.

Indie ships are easy to recognize; their ships are typical of their defiant attitude - sporting lurid graffiti.



Game Guide:

Overview of *INDEPENDENCE WAR*

Game Objectives

As a player of *INDEPENDENCE WAR*, you will create a character, name him and take him through the game. Your aim should be to maximize your score as you do so. The character is an officer in the Commonwealth Navy. The game is broken into individual missions each of which present a score when completed.

To achieve success, you should look to achieve the highest level of performance at every stage. This is accomplished by executing all of the mission objectives. You'll also be rewarded for using your initiative and being successful in combat.

Main Menu

When the game loads you are presented with a simple menu, showing four rotating icons. These give easy access to the game.

Select the appropriate icon

Icon	Function	Description
Cylinder	Crew Roster	Use the roster to access your character and from there get into the game itself. You are then presented with the Character History Screen
Ship	Immediate Action	A quick way to get into a space battle. (Not for the beginner)
Filmstrip	Credits	See who created the game
Chip	Options	Configure the game for your preferences

Creating A Character

Click on the Crew Roster cylinder to access the roster. The roster is a rotating cylinder of six numbered 'slots'. Each slot contains a separate, named character and records that character's progress through the game.

Rotate the roster upward by clicking the top of the cylinder. Rotate the roster downward by clicking the bottom of the cylinder. If a slot contains a saved character, click on the character name in the slot to select it and play that character.

When you first start the game no characters have been saved, and each slot is labeled UNKNOWN CAPTAIN. To create a character click on the box labeled NEW CAPTAIN. A cursor will appear in the current slot, allowing you to enter a name. When you are happy with your character's name press <<ENTER>> to accept it and go to the Gameplay Mode screen.

Choosing a Gameplay Mode

INDEPENDENCE WAR has two different gameplay modes. To select your gameplay mode click on either the **Simulation** or **Arcade** boxes.

Simulation is the default original flight mode. To get the most out of the game we recommend that you play in this mode. In simulation mode the ship's flight dynamics and systems behave as described in the rest of this manual. **Arcade** mode is designed for easier (but much less realistic) flight control, and has several significant differences from Simulation mode:

- The ship's thrusters are more powerful and cancel out nearly all side-slip (See NAV: Thruster: **Assisted Mode**)
- Weapons are three times more powerful.
- Damage is limited so your systems never fully go off-line (See: ENG: Repairing Systems)
- Extra enemies are generated in some missions to compensate for the more powerful weapons.

Arcade mode also has some disadvantages:

- Manual thruster override is limited to 2000m/s (See NAV:Thruster: Speed Override)
- Ripple Fire mode is not available (See WEP: Missile Types: Ripple Fire Mode)

Note: *When you select a gameplay mode your Character is locked into that mode for the rest of the game. To change gameplay mode you must create a new character, which will start that character's game from the beginning. You cannot switch gameplay modes part way through the game. As you have six character slots you may wish to start two characters – one in Simulation mode, one in Arcade mode.*

When you've selected your gameplay mode you'll progress to the **Character History** Screen.

Operating the Character History Screen

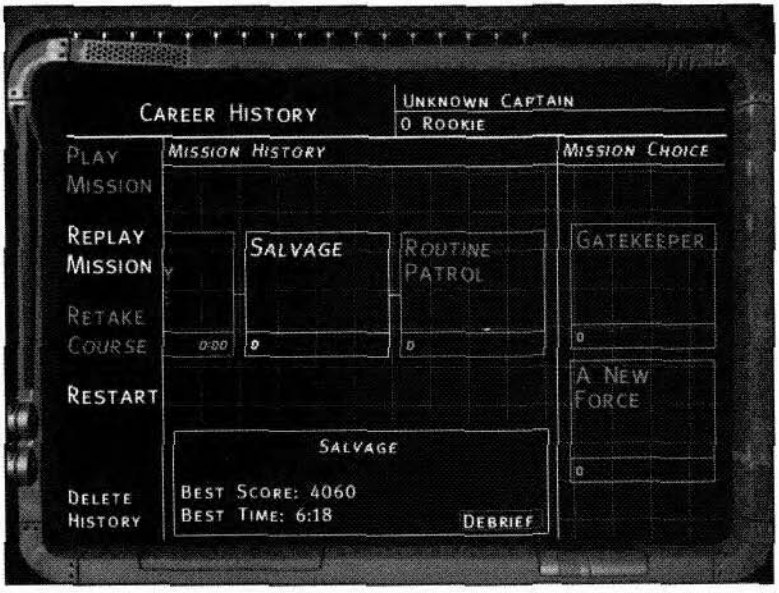
The history screen has four windows.

1. The small top right window shows your Character's name, rank, and score. The rank will have a (S) or (A) suffix to show which gameplay mode your character is using.

2. The largest, center one is the Time-line Window. The Time-line shows all the missions undertaken so far in the order that they were played.

3. The right hand window (Mission Window) shows the range of missions available at this time. At every point in the game, your character will be offered a limited choice of new missions to attempt. When you first start the game, you have a choice of NAV Basic, the first training mission and Salvage, the first mission of the main game.

4. The left-hand window, the Command Window shows the commands available to you for the selected mission. These options are Play Mission, Replay Mission, Retake Course, Restart and Delete History. These options will be highlighted if available for the selected mission. As the player you can choose at any point to try a new mission, re-play an earlier mission for fun, or go back in the character's history to re-play the character from that point.



Play Mission

Select a mission in the Mission Window, the Play Mission option will be highlighted in the Command Window, clicking on this with the mouse or pressing <<ENTER>> will take you into the ship and start the mission.

Retake Course

When at least one mission has been completed, you can select a mission in the Time-line Window. If this is a training mission, Retake Course will be highlighted. Click on this and retake the training mission to try and improve your score.

Replay Missions

If the selected mission is a main mission, the option Replay Mission will be highlighted. Selecting Replay mission will take you into the ship and play that mission, but your score will not count for your main score and your Time-line will be unaffected.

Restart Missions

If the selected mission is a main mission displayed in yellow, the option Restart will be highlighted. Selecting Restart will wipe out all the missions in the Time-line after that point and take you to that mission. See the warning. Missions displayed in yellow denote missions which can be replayed these include; the last mission played and missions in which your behavior affects the mission options presented to you.

WARNING: - If you do replay a character from an earlier mission, this is exactly like reverting to a saved-game made at that point. All points scored in later missions will be lost!

When you are returned to the History Screen after completing a mission, the Time-line window will show your score for that mission, and a time if applicable. If you select the mission with the mouse, the Debrief option is also available in the Mission Summary Window. Click on this for a replay of the Debriefing if you need a reminder of the story so far.

Your choice of missions will change after each mission is completed. Not all missions need be attempted to complete the game.

Completing Missions

With each mission you are given, you should read the briefing carefully and also study the mission objectives. If you achieve all of the mission objectives you will succeed in completing the mission. However, ***many missions have hidden or additional objectives which can earn you extra points.***

Your objective throughout the game should be to not just complete, but "ace" each mission. This means doing more than the minimum amount of work.

After each completed mission, points are awarded, but extra points are given for additional kills and also executing hidden objectives. Look at the debriefing screen closely and listen to the voice over for clues.

When you have completed a mission, the character history screen will change to reflect this. A box representing the just-completed mission will appear at the end of your character's time-line. In this way the screen will build up a visible record of your characters career.

Going Back to change history

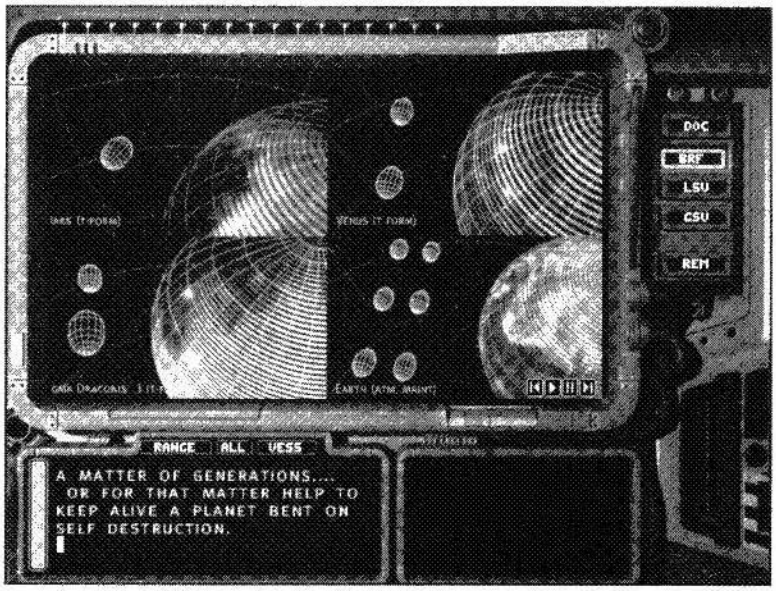
For a number of reasons you may wish to go back in time to replay a completed mission. If you are dissatisfied with your score in a mission you just completed, you may want to attempt it again. Also in the last latter parts of the game, *INDEPENDENCE WAR* features branching story-lines. The decisions you take have a strong influence on the course of global events.

Because of this you might find you have made a wrong decision and wish to go back in time to that point. By doing this, you can see what happens if you took the alternate path. Once again you can do this with the character history screen. You may only re-start from a mission in yellow. Select any of the mission boxes in yellow and click on RESTART.

Remember, all the missions that occurred after that point in time will be deleted. The future is not written until you play it!

Mission Briefing

When you enter a mission, the first thing you normally see is the Mission Briefing document. This document, containing your orders in text, animation and sound, can be reviewed at any time in the mission. In addition to your directives, the briefing will normally offer some background to the mission; explaining the context and the importance of the task.

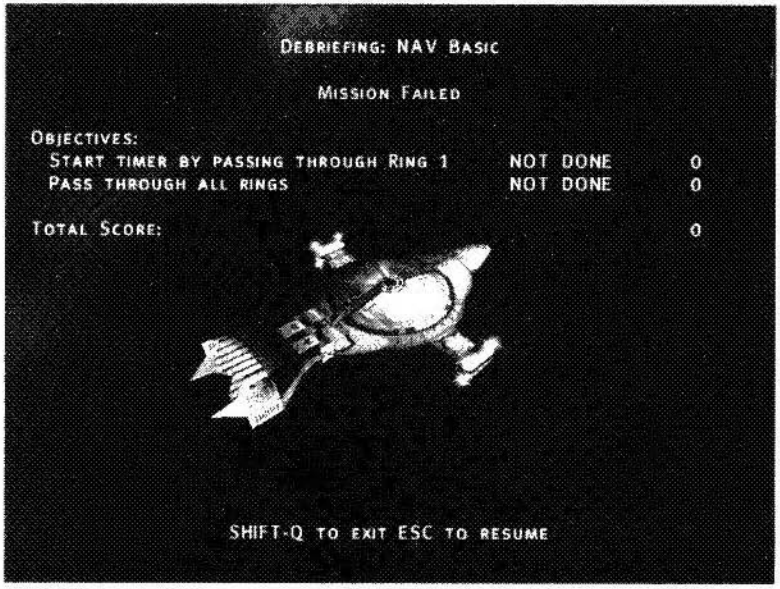


See the section on the briefing document in <<Game Guide: CMD Workstation>>

Debriefing

On completing a mission you can call up the debriefing screen by quitting.
To do this press <<Shift Q>>.

This will present you with a summary of your performance and usually some additional help. If you do this without completing the mission, you'll be told you failed the mission. Press ESC to exit the debrief screen.



Game Controls

This table lists keys that relate to the game (rather than in the simulation)

Game Controls

Function	Key	Description
Pause	P	Pauses and un-pauses game
Quit Game	*Shift Q*	*Leave game (and show debrief screen)*
Exit Debrief Screen	ESC	
Options Screen	Shift O	Call up the options screen
Exit Options Screen	ESC	

Changing Views

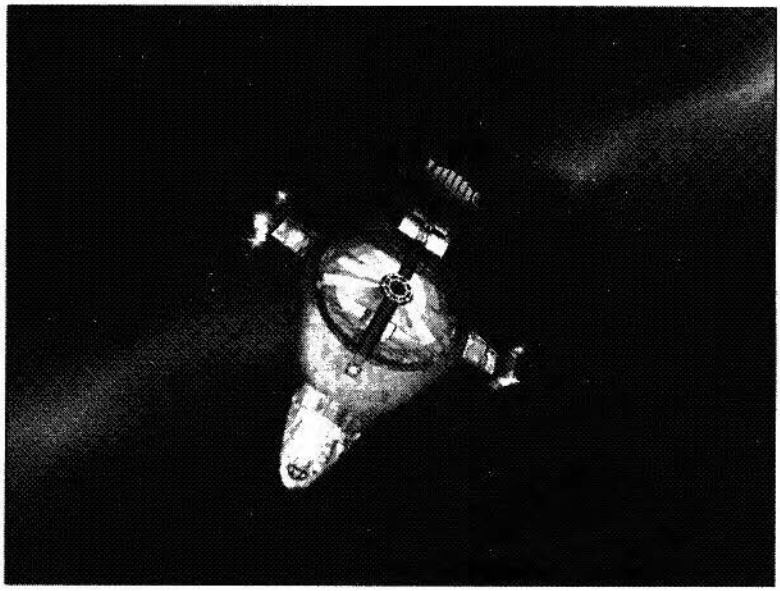
It is possible to run the game while viewing a non-bridge viewpoint.

Changing Views

Function	Key
Toggle Full-screen Mode	TAB
Cycle Full-Screen View	Key ` (above TAB)

1. Forward View - View from players ship without instruments
2. *Contact View - View towards current contact*
3. Chase View - View of players ship from behind
4. Missile View - View from missile (if launched, otherwise chase view)
5. Fixed View - Static view towards players ship

Contact View	F1
Chase View	F2
Missile View	F3
Fixed View	F4
Drop Camera (in Fixed View)	Shift Key ` (above TAB)
Director Mode	Shift D
Exit Director Mode	ESC
Look around	Joystick hat (see options)



Option Screen

INDEPENDENCE WAR features an option-screen that allows you to change the following features

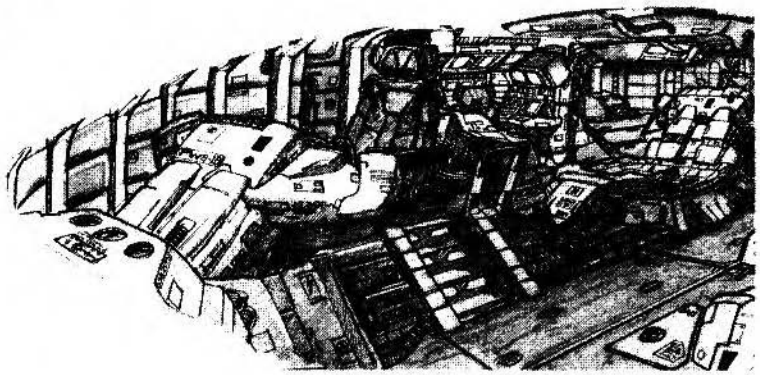
Options

Feature	Description	Which is faster?	Graphics Mode
BRIGHTNESS	Alters Screen Brightness		Software
AMBIENT LIGHT	Alters the amount of background lighting		Both
BACKGROUND NEBULA	Removes the background nebulae	OFF	Both
ANIMATED 3D CLOSE-UPS	See speaking ships in 3D window.	OFF	Both
DETAIL CUT-OFF POINT	Alters the distance where objects switch to lower detailed, and faster models.	Slider to left.	3Dfx

Feature	Description	Which is faster?	Graphics Mode
AUTO DETAIL CUT-OFF	Lets the computer manage the detail levels automatically	ON	3Dfx
RADIO CHATTER	Lets you turn on/ off the background radio chatter sound effects.		Both
CONTROL TYPE	Selects Joystick or Keyboard controls		Both
JOYSTICK SECOND AXIS	Determine what moving the yoke left and right should do. Either roll the ship or Yaw the ship. By default the option is YAW.		Both
JOYSTICK HAT	Determine what the joystick hat should do. Contacts - Navigate Contacts registry (default) *View* - Rotate the camera POV Lateral - Hat manually operates lateral thrusters		Both
STARFIELD BLUR	Switches on or off the star motion *blur effect*	OFF	Both
MISSILE TRAILS	Turns on or off the missile smoke trails	OFF	3Dfx
HIGHDEF SHAPES	Turns on or off the enhanced High-Definition shapes	OFF	3Dfx
INFINITY BATTLE MISSION MODE	Switches the instant action mission's play mode between Simulation and Arcade		Both

Assuming Command

INDEPENDENCE WAR is a simulator game. All interactions within the game take place through the simulation of the spaceship. In the active portions of the game, the player's character never leaves the bridge of the ship.



The ship is controlled though the four workstations located on the bridge:

Selecting the four bridge workstations

Function	Key
Select CMD Workstation	F1
Select NAV Workstation	F2
Select WEP Workstation	F3
Select ENG Workstation	F4

- **CMD:** The command workstation – where the captain normally would oversee operations and has access to specific command functions.
- **NAV:** The pilot's workstation. Offering control over the ship's propulsion systems, main weapons, autopilots, and offering a clear forward view for the pilot.
- **WEP:** The gunner's workstation. Offering a 360 degree target-locked screen and presenting the ability to lock and fire on any target.
- **ENG:** The Engineering workstation: Allowing the operator to monitor and repair any of the ship's internal systems.

The nerve center of a starship is its bridge. On a Navy Corvette the bridge is a cramped environment located at the forward end of the ship. A bridge team consists of a captain and three other officers each seated at a purpose built workstation.

Virtual Bridge

INDEPENDENCE WAR features what we call a **virtual bridge**. You can look around the bridge and jump to other workstations by clicking with the mouse. In the heat of battle, you will probably want to use keyboard shortcuts to move from workstation to workstation. But using the mouse to move around the virtual bridge lets you gain a sense of location and size of the bridge area,

Click on the red arrow in the bottom right of any workstation screen to look-up and see an overview of the bridge area.

Use the mouse pointer to look at any of the other three workstations. The screen will pan to look at the selected workstation. Finally click on the desired workstation to jump into that seat.

Game Guide: workstation 1: CMD

The Command Workstation (CMD) is the user interface for the captain and provides critical command functions not available on other workstations:
The main CMD workstation functions are:

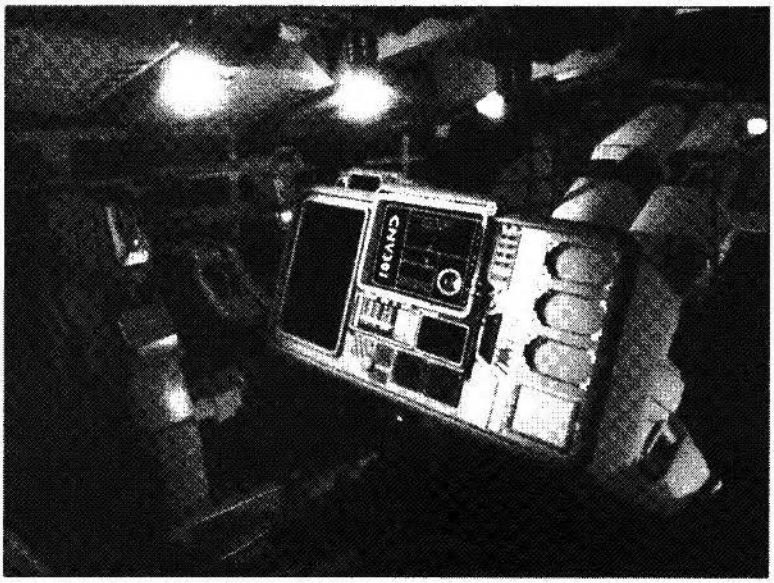
- Briefing Screen Access (BRF)
- Objectives screen (OBJ)
- Documents Interface (DOC)
- StarChart - Global Space View (GSV)
- Remote Control Interface (REM)

Command Main Functions

Function	Key	Mouse Click
Select CMD Workstation	Key F1	
Call up objectives list (OBJ)		OBJ Button
Call up Briefing Screen (BRF)		BRF Button
Call up Documents Screen (DOC)		DOC Button
Call up Star Chart (GSV)		GSV Button
Access Remote control interface (REM) (You need to designate a ship to control first)	SHIFT-R	REM Button

CMD: Selecting the View

The shortcut key for the CMD workstation is <<F1>>. You can move to the workstation via the virtual bridge – the command workstation is at the very back of the bridge area.



CMD: Briefing Screen

The Briefing Screen is accessed from the CMD workstation by pressing the BRF button on the console (by clicking on it with the mouse).
This will play the briefing document for the current mission. Normally the briefing document takes the form of an explanation of the nature of the mission and a series of orders dictated by the admiral in charge of the mission.

Briefing Screen: Briefing Image Conventions

The video-animations, which accompany briefings, are designed to present a symbolic, rather than realistic view of the mission.

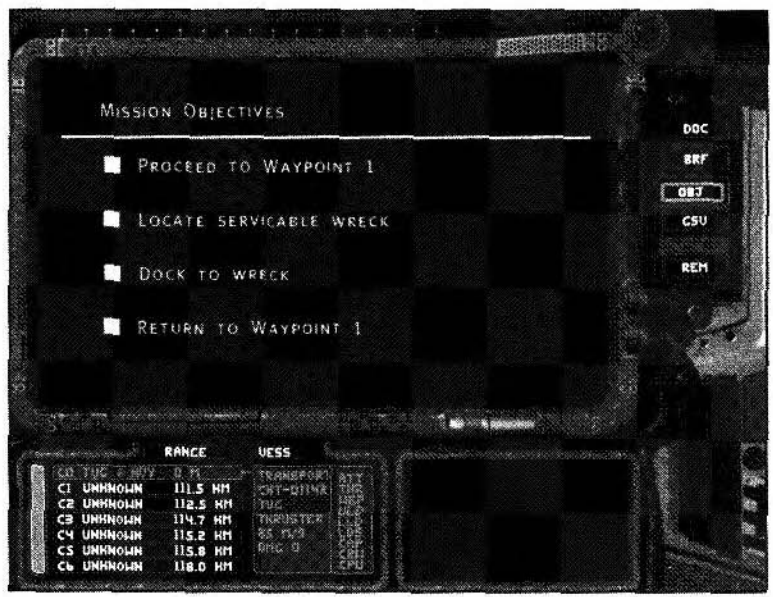
- Navy ships – or ships allied with the Commonwealth are always shown in blue.
- The player's ship: The Dreadnaught – will be always shown with bright outline.
- Independent ships are always shown in red.
- Grids and starfields are sometimes shown to aid the viewer.
- LaGrange points (where interstellar jumps occur) are shown as a diabolo shape.

CMD: Objectives Screen

Every mission has a specific number of objectives to be fulfilled in the course of the mission. This screen is a good way of reviewing the mission objectives and seeing what has been done, and what is left to do.

To get the mission-objectives screen, click on the OBJ button on the command workstation. It is worthwhile to check the mission-objectives screen frequently. Sometimes missions take an unforeseen twist and new mission objectives may appear.

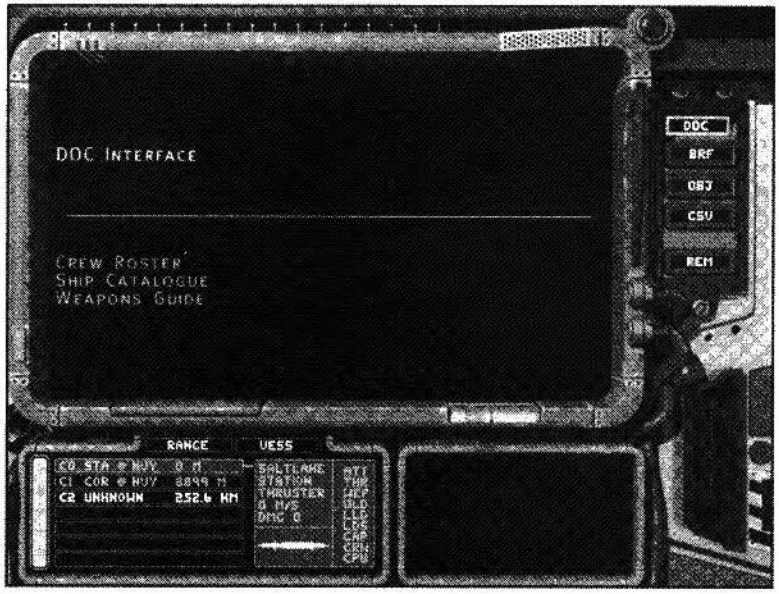
To cancel the screen, press ESC or select another function.
You can get a quick printout of the next objective to be achieved by pressing <<X>>



CMD: Document Screen

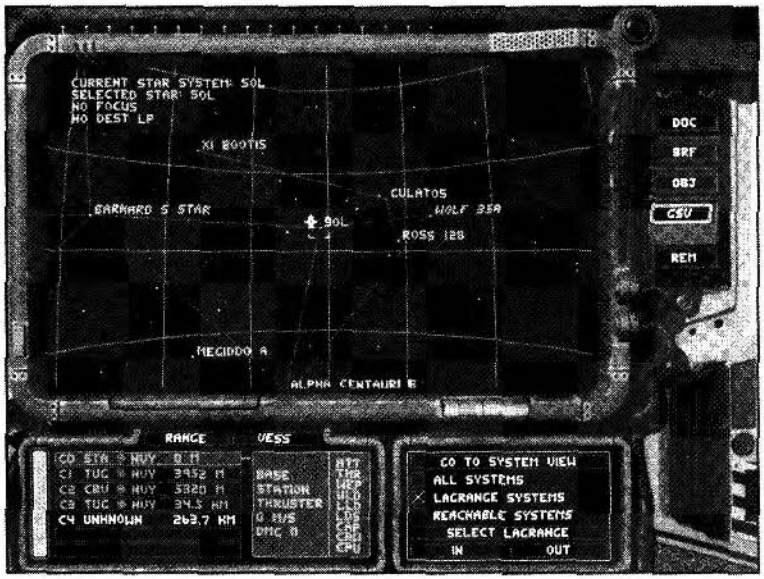
The computer of your ship contains a number of hypertext documents you may wish to view. These include the personnel records of the bridge crew as well as other documents.

You can access the documents interface by clicking on the DOC option on the CMD workstation. Once the document interface is open you can browse the hypertext documents in the files in the same manner as any web browser. As the game proceeds, new documents will appear in the document folder, as new information becomes available.



CMD: Star Chart - Global Space View (GSV)

The CMD workstation includes access to the star-charts held in the ship's computer. The stellar database holds the accurate position of over 5000 known stars. In addition the GSV screen can zoom in on those systems with known planets and view the planet positions, their orbits and the LaGrange points associated with them.



This display mode is called Global Space View (GSV). To enter GSV: click on the GSV button on the command console.

The GSV has two modes: Star View and Solar System View.

1. Star View is the initial mode and shows the known stars in a 3D format. Rotate the view by holding down the right mouse button and moving the mouse. You can select individual stars by left-clicking on a star with the mouse, or type the first letter of the star's name and the view will center on that star.

   The zoom in and zoom out buttons on the interface will bring the objective closer.

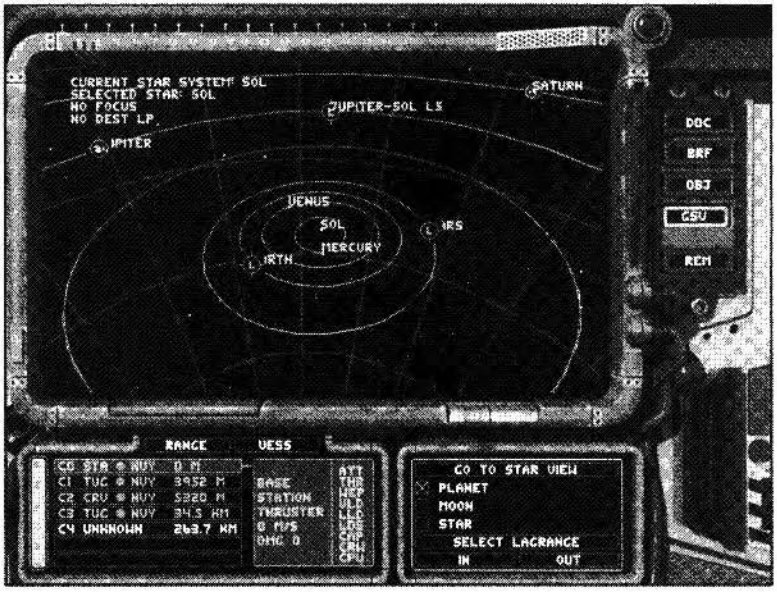
   As well as stars the view will also display lines between certain stars. These lines are LaGrange linkages. These link the stars currently accessible through capsule space.

   There are three filter levels available on this display to control the amount of information displayed.
   Reachable – Shows only the names of stars relevant to the mission.
   LaGrange – Shows only the names of stars with LaGrange points.
   All - Names all stars. This may lead to a cluttered display.

2. Click on the on-screen "System View" button to access the Solar System View.

   Solar System View shows the planets of the currently selected star, along with their orbits and the available LaGrange Points. Again, you can click on a planet or LaGrange point with the mouse to center on that feature.

Once again filters are available to de-clutter the display.

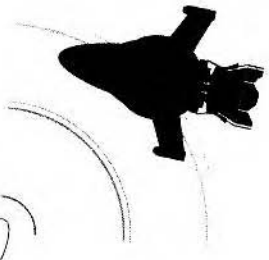


CMD: Remote Control

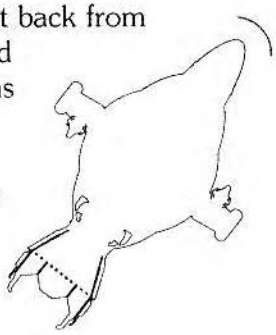
All commercial and military ships contain an emergency control back-up system allowing them to be controlled from an external remote source. Of course there is the potential for abuse of such a system – and security locks are in place to prevent such abuse.

The protocols for the remote-control of a vehicle are standard across the whole range of space vessels, from heavy cruisers to mini-service drones. **The REM function allows you to take direct control of other vessels.**

To access the remote control interface: click on the REM key on the CMD workstation. This will attempt to make a remote connection with the vessel that is the current contact.

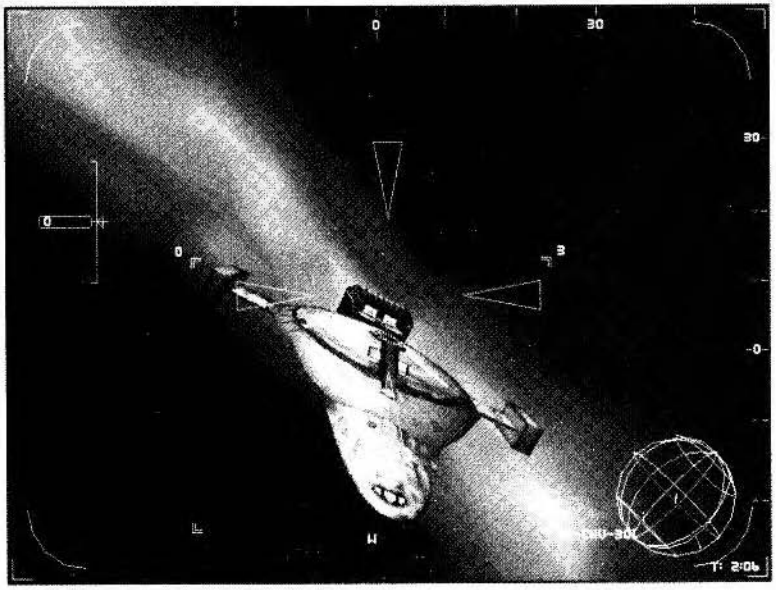


If the remote link is successful – you will enter into the remote linked state. Your yoke and throttle controls will be sent to the remote ship and telemetry in the form of a point-of-view full-screen image will be sent back from the remote ship to your screen. To remind you that the link is working this screen has a green tint.



You should be able to pilot the other ship as if you were sitting in the pilot's seat.

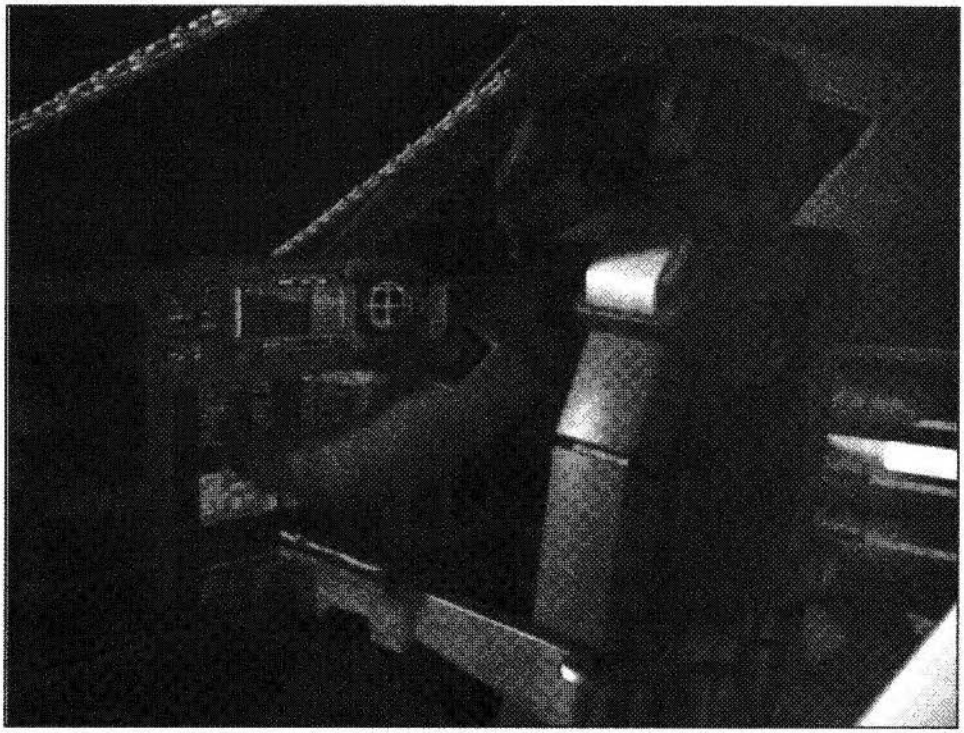
A word of warning: while you are in the linked state, your ship is without a captain and may get into trouble.



The link itself can be broken if the range between the vessels becomes too great or the signal is intentionally blocked. The player can terminate the link at any time by pressing the <<ESC>> key or by switching to another non-link mode. For instance switching to the pilot workstation view. You can use <<SHIFT-R>> as a shortcut for REM mode from any workstation.

Game Guide: Workstation 2: NAV

The Navigational Workstation (NAV) is where the pilot of the ship sits. The NAV Workstation is particularly useful because it can be used to both pilot the ship and engage in combat. In general play, the pilot's workstation (NAV) is vital for flying the ship and general combat. The pilot point of view is unique in that the pilot is actually looking through the front view-port of the ship – rather than at a visual display.



NAV: Selecting the view

The keyboard shortcut to get to the NAV workstation is <<F2>>. On the virtual bridge, the pilot's workstation is at the very front of the bridge area on a raised platform.

Selecting the NAV Workstation

Function	Key
Select NAV Workstation	F2

NAV: Full Screen Mode

If you need to see a full-screen view, you can press the <<TAB>> - to get full-screen mode. This offers the player a much larger visual area – but the player will sacrifice some instruments in doing this.

NAV Workstation Overview

In this section we will cover:

- Flying the Ship
- Pilot Head-Up Display
- Using Weapons from the NAV workstation
- The Contacts Display
- The Orb
- Piloting control modes
- Using Autopilots

NAV: Flying the Ship

Wherever possible *INDEPENDENCE WAR* obeys similar conventions to flight-simulators to control the ship.

INDEPENDENCE WAR Basic Flight Controls

Function	Key	Joystick
Pitch Up	KeyPad 2	Stick Back
Pitch Down	KeyPad 8	Stick Forward
Roll Left	KeyPad 4*	Left Rudder * or Button 2 & Stick Left
Roll Right	KeyPad 6*	Right Rudder * or Button 2 & Stick Right
Yaw Left	KeyPad 1*	Stick Left*
Yaw Right	KeyPad 3*	Stick Right*
Lateral Up (Y Pos)	S & KeyPad 2	S Key & Stick Forward
Lateral Down (Y Neg)	S & KeyPad 8	S Key & Stick Back
Lateral Right (X Pos)	S & KeyPad 6	S Key & Stick Right
Lateral Left (X Neg)	S & KeyPad 4	S Key & Stick Left
Set Speed Up	+	Throttle Up
Set Speed Down	-	Throttle Down
Forward Speed Over-ride	A	
Reverse Speed Over-ride	Z	
Toggle LDS	L	
Undock	U	
Toggle Flight Mode Assisted/ Flight Mode Free(Advanced)	N	

Function	Key	Joystick
Swap Roll & Yaw Axis	Y	Exchange the Joystick/yaw and rudder functions.
Separate the Command Section	C (Press twice)	
Use Autopilot	See Autopilot Section	

* Denotes this key and joystick usage can be modified by user preferences.

NAV: Pilot Head-up

The most vital information for the pilot is presented through the head-up display: A holographic projector which over-lays tactical information directly over the pilot's fielc of view.

The head-up is perhaps the most important source of information available to the pilot. It presents:

- An at-a-glance tactical summary of every vessel
- An indicator, showing the direction of the primary target.
- The current piloting mode and speed settings
- A 3D reference grid – allowing the judgement of speed and distance.
- Cannon aiming points
- Historical Contrails showing the trajectory of vessels and missiles.

If the ship takes a severe hit, the head-up display may briefly break-up.

Head-Up: Changing the Head-Up display

You may occasionally wish to change the level of detail on the head-up display.

Head-up display controls

Function	Key
Toggle Head-up on/off	H

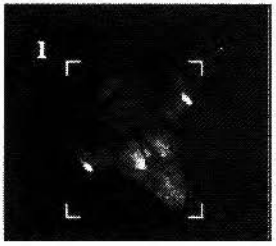
Head-Up: Reference Grid

The head-up presents a visual reference grid of static points, allowing the pilot to visually judge speed and distance.

Head-Up: Contacts (color coding)

All vessels, stations, weapons and items of debris within range are logged in the ship's computer as contacts. The shipboard computer is permanently searching for new contacts. The ship detects vessels usually by their thermal emissions although ships travelling using the Linear Displacement system (LDS) are detectable at much greater ranges. When the computer identifies a contact, it color-codes it.

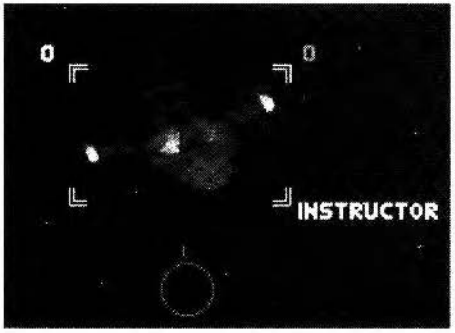
Navy & Commonwealth	Blue
Indie Ships	Red
Unidentified Contacts	Yellow
Exercise Targets	Brown
Neutral Ships	Green



All contacts are marked out on the head-up display with a contact box.

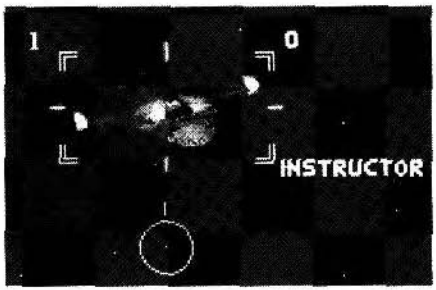
Head Up: Current Contact

The pilot is able to select individual contacts. The particular contact selected is always referred to at the current-contact (CC). The CC is marked on the head-up with a double line contact box:
Range to contact in Kilometers
Damage %
Contact Name
Upper and lower shield modifiers
Out of Field indicator.



Head Up: Selecting the Target

The pilot is able to select any contact as the primary target. The process of identifying a contact to the computer is called designating a target. This is done to inform the computer which ship to shoot at or which station to dock with. The simplest way of doing this is pointing the ship at a contact and pressing <<T>> or Joystick Button 2. There are more ways to designate a target covered later in this section.



Simple Target Designation

Function	Key	Joy Equivalent
Designate Target	T	Joy Button 2

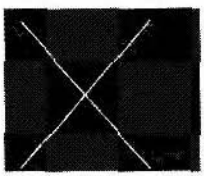
When a contact is the designated target – the HUD plots a crosshair on top of it:

Head Up: Speed Indicator

The speed indicator is a double display showing the current forward rate of motion of the ship – and also the set-speed. The set-speed is the desired forward (z-axis) velocity of the ship as set by the pilot.
See the section NAV: Thruster: Set Speed

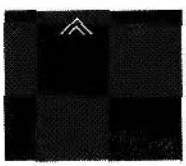
HeadUp: Out of field indicator

If the position of the target places a contact out of the cannon's field of fire: This symbol will appear.



HeadUp: Shield Indicator

This symbol is added to the contact box, when the ship's shield array is tracking the target. The symbol will change if the upper or the lower shield array tracks the ship.
See the technical manual on shield concepts.



HeadUp: Rapid Fire Crosshair

This head-up device shows the aim point for the forward-cannon when in Rapid-Fire mode. In normal (assisted aiming) mode it will not be present. The Crosshair will move slightly to adjust for the range to the current target. This is because of the wing-mounted position of the PBC Cannon.

NAV: Using Weapons (Basic)

The NAV workstation allows the pilot to directly operate the ships weapon systems, albeit with some restrictions

Note: To practice use of weapons from the Nav workstation, use the WEP Basic mission from the mission selection list.

This section covers only introductory weapon usage. For more information consult the section in the WEP workstation and also consult the combat guides)

To deploy a weapon, follow the process identified below:

1. Select the correct weapon system. (Either a cannon or missile)
2. Designate the appropriate target.
3. Fire the weapon at the target.

Combat Functions (Basic)

Function	Key	Joy
Select Cannon Weapon	Enter	Joy Button 3
Select Missile Weapon	Backspace	Joy Button 4
Designate the central contact as Target	T	Joy Button 2
Fire Cannon or Missile	SPACE	Joy Button 1

Nav: Weapons: Designating targets

Before using either cannon or missiles, you will need to designate your potential target.

Designating a target

Function	Key	Joystick
Designate the contact nearest center of screen as target	T	Joy Button 2
Designate last enemy to attack as target	Q	
Designate nearest enemy ship as target	R	
Designate nearest weapon as target	W	
Cycle through Enemies and designate as target	E	
Next Contact	<	Joy Hat Down
Previous Contact	>	Joy Hat Up
Designate current contact as target	/	Joy Hat Right

You should see the double line contact box and crosshair lock onto your selected target. This function will lock onto the contact closest to the center indicator.

NavWeapons: Selecting Cannon

Select PBC Cannon by pressing <<ENTER>> or joystick button <<Joy Button 3>>

NavWeapons: Firing Cannon

The ship's cannon are mounted on gimbals and swivel. The computer will assist you in aiming at the selected target. Note that in Rapid-Fire mode, though you must aim manually.
Fire the cannon using the key <<SPACE>> or the Joystick <<Joy fire 1>>

NavWeapons: Selecting Missiles

To fire a missile at a target, select missiles, by clicking on the key <<Backspace>> or on the joystick button <<Joy Button 4>>

NavWeapons: Firing Missiles

Now the main fire button will launch homing missiles at the target. The status of missiles in-flight will be displayed on your head-up display.

NAV: Contacts Registry

The Contacts Registry Display is useful in presenting a tabular display of multiple ships. Each line in the display represents a single ship, and that line summarizes the name and status of that ship as well as what side it is on. The Registry can be set to operate in different modes by filtering the contacts so that it displays only what you need it to show.

In the NAV workstation, all contacts are sorted by range; the nearest contacts are listed at the top of the registry and the farthest are at the bottom. You can scroll the contacts list up and down by either using the scroll bar at the left of the Registry Display. You can rapidly pick any entry on the contacts registry to be the current contact. Use the keys << < >> and << > >> to select the correct contact.

Contacts Registry Display: Filters

You can also apply different filters to the information on the display. The filters allow you to list only what you want to see in the display. By default the Registry uses the VESS filter. It can also use WEPS, INRT, or WPTS filters. You can switch filters by clicking on the right button above the Registry Display, or pressing <<M>>. These filters also apply to the Head-Up Display.

Contacts Registry Filters

VESS	All vessels are shown.
WEPS	All missiles and mines are shown
INRT	All inert objects such as asteroids are shown
WPTS	All mission waypoints and LaGrange points are shown

Contacts registry Display: Information Line

The information line shows the following information

- Contact Number - the number of the contact in the list
- Ship type code - 3-letter code designating ship type

- Target symbol - the currently target contact shows a triangle, otherwise a circle
- Allegiance - 3 letter code designating the contact's allegiance
- Range in kilometers or meters when close enough

The Current Contact's Information Line is highlighted.

Contacts registry Display: Information Panel

This panel is on the right of the Registry Display and shows the following information about the Current Contact:

- Name of ship
- Class of vessel
- Thruster or LDS mode indication
- Current Velocity
- Level of damage from 0 - 100 %
- Silhouette - aids in ship recognition
- Damage indication: the 3 letter codes show the status of the Current Contact's systems.

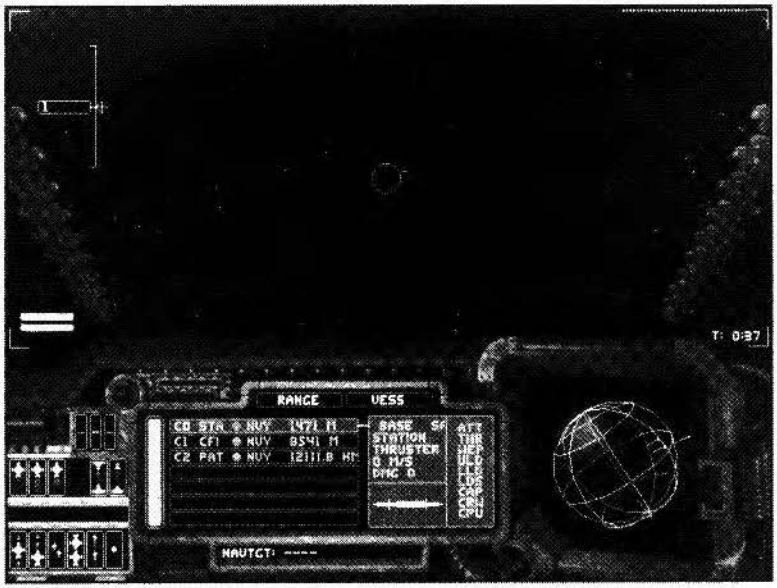
They are:

ATT	ATTitude Thrusters
THR	main THRusters
WEP	WeaPon systems
ULD	Upper LDa shield
LLD	Lower LDa shield
LDS	LDS drive
CAP	CAPsule drive
CRW	CreW module
CPU	Main computer module

You can use these in combat to gain the advantage. For example upper LDA damage would suggest that an attack from the upper aspect would be successful.

NAV: The ORB

The orb is a 3D-radar device – able to show the position of contacts both in front – behind and above the player ship



In concept the orb is simple. The display represents the three dimensional space surrounding the player's ship as a sphere. The player's ship is at the center of this sphere, which has a radius of 1 kilometer. Each contact in range is then shown as a point and a stalk connected to the sphere. The farther away a ship is the farther out from the sphere is its point (and the longer the stalk).
If the contact is inside 1 km the stalk goes inward from the sphere.
The current contact is marked out as a fatter-flashing point.
All contacts are color coded in the same way as the Head Up Display.

NAV: Contact Camera

The display used by the orb can be used to show a zoomed-in view of the current contact. To toggle the display from Orb to Contact Camera, press the <<V>> key. This feature is not available in full-screen view.

NAV: Tactical Resource Interface (TRI)

Another orb mode is the tactical resource interface or TRI, which allows you to allocate power between the three main systems of thrusters, weapons and shields. For a more detailed explanation see **ENG: The Tactical Resource Interface (TRI)**

NAV: At-A-Glance Damage Indicator

At the top right of the display is a row of lights that are an at-a-glance indication of your current damage status, with each light representing a ship's system. With no damage all the lights are green, but when your ship is damaged one or more lights will turn yellow (system damaged, but working at reduced efficiency) or red (system severely damaged and not working).

The indicator intended as quick reference, and isn't intended to give exact details of damage. For more comprehensive damage status and repair options you should use the Engineering Workstation.
See **Workstation 4: ENG.**

Note: The damage indicator is also available on the COM and WEP workstations.

NAV: Helm Thruster Modes

For most of the time a starship maneuvers by using conventional reaction thrusters. The thrusters vent gas or plasma at high velocities to produce thrust. This allows the ship to achieve acceleration and also to produce turns.

Thrusters would normally be used near stations or when interacting with other ships (including combat). In thruster- based flight, velocities are normally modest (less than 2000 meters per second) and maneuverability is important.

Nav: Thruster: Assisted Mode

Newtonian motion in space is difficult for the pilot to deal with: The absence of friction and the ability of a spacecraft to side-slip freely in any direction irrespective of the attitude of the ship causes problems for the most experienced pilots.

Consequently all vessels offer a computer assisted piloting mode which exploits the ship's thrusters to cancel side-slip and maintain the ship's forward speed.

In assisted mode the ship will fire lateral and main thrusters to reduce side-slip and maintain the forward velocity at the set-speed.

NOTE: For normal maneuvering the ship should be left in assisted thruster mode. This is the default.

This is how it works:
Imagine that the ship is travelling forwards (along its z-axis) at a velocity of 100 meters per second. Now imagine that the pilot pulls back on the yoke to pitch the spacecraft back by 90 degrees.

Without correction this would result in the ship's velocity in space being unchanged. Inertia would continue to move the ship along the same path. This would result in a vessel that was sliding at 90 degrees to the direction it is now pointing. Its forward speed (z-axis) would be 0 meters per second but its y-axis slip would be –100 meters per second. This is how free-flight mode behaves.

In assisted piloting mode, this is what would happen:
1. The belly thrusters of the vessel (pointing downward) would fire, canceling the side slip to zero.

2. The main thrusters of the vessel (pointing rearward) would fire, restoring the forward (z-axis) speed back up to 100 meters per second.

To force the ship into assisted flight mode, use <<key N>> to toggle the flight mode.

NAV: Thruster: FreeMode (Advanced Feature)

This assistance can be deactivated at any time by pressing <<Key N>> to toggle the flight mode, placing the ship in free mode: This turns off all computer assist and means that set-speed is meaningless. Turning the ship will not affect its velocity.

In FreeMode, turning the ship will work as normal. To change the ship's velocity use the main or retro z-axis thrusters. <<Key A>> or <<Key Z>>

WARNING. Free mode is extremely difficult to master and should only be used for specific maneuvers. See Advanced Combat guide.

To restore assisted flight mode, press key <<key N>>

NAV: Thruster: Using Translation Thrusters

By holding down the <<S>> key, the control yoke is put into Lateral Thrust Mode. This is indicated on the HUD. In Lateral Thrust Mode the movement of the joystick is interpreted in a different way: Pushing the stick to the left slews the ship to the left without turning the vessel. Similarly, pushing the stick up, down, or right will slide the ship in the corresponding direction. This can be used for specific combat maneuvers or in fine-positioning of the ship. You can also configure the joystick hat to perform this function.

NAV: Thruster: SetSpeed

The set-speed is the forward rate of motion determined by the pilot. In assisted mode this is usually between -1000 and 1000 meters per second. In assisted mode the throttle control on the stick will directly influence the set-speed. Using keys, the <<+>> and <<->>.

Navigation: Setting the speed of the ship (Assisted Mode)

Function	Key	Joystick
Increase Set-Speed	+ (Tap or hold-down)	Throttle up
Decrease Set-Speed	- (Tap or hold-down)	Throttle down
Over-ride forward speed	A	
Over-ride rear speed	Z	

The keys can be tapped for fine-control, or pressed and held for making rapid, large changes to the set-speed.

The joystick throttle control will allow only the setting of speeds between 0 and 1000 meters per second.

NAV: Thruster: Speed Override

Experienced pilots may find the -1000 to 1000 meters per second set-speed limits to be too restrictive. Using override keys, higher rates of forward and reverse z-axis motion can be attained.

The <<A>> allows the set-speed limit to be over-ridden. It applies forward thrust at maximum power.

The <<Z>> allows high reverse speeds to be attained. It applies reverse thrust at maximum power.

These keys are vital use in combat. See the Combat guide for more information.

Note: To practice Basic Thruster Navigation use Mission: Nav Basic and Nav Advanced

NAV: LDS Mode

Using thrusters to traverse the distances between planets and even between planets and their moons would be painfully slow. If you don't want to grow a beard travelling from Ganymede to Europa read on.

The LDS drive allows you to travel at up to 99.9% of the speed of light.

The Linear-Displacement Drive System (LDS) system offers high-speed motion by repeatedly shifting the vessel in small inertia-less jumps many millions of times per second.

Engaging LDS is achieved by pressing the <<Key L>> - and can be toggled off again by pressing <<Key L>>

In LDS flight, the autopilot and set-speed functions behave in a very similar way to thruster based flight - but with the following differences.

1. Match Velocity - will not work in LDS.
2. The set-speeds are very much higher and calibrated on a logarithmic scale. This means that for every notch up the set speed indicator the speed is multiplied by 10.

You can use LDS manually but it is only recommended for advanced pilots, mainly because it is so easy to overshoot at the colossal velocities that are attainable.

NOTE: To practice using LDS use Mission: NAV Advanced

The physical principle, which allows the LDS drive to work, can be blocked. This means areas of space can be set out to be No LDS zones. This same principal is used in the LDSI missile. If you find yourself in such a zone the message "LDS-INHIBIT" will appear on the head-up and you will not be able to engage LDS drive.

NAV: Capsule Drive

Both thruster and LDS propulsion systems are unsuited to covering the distances between star systems. Larger vessels are fitted with the Capsule Drive, which makes interstellar travel possible.

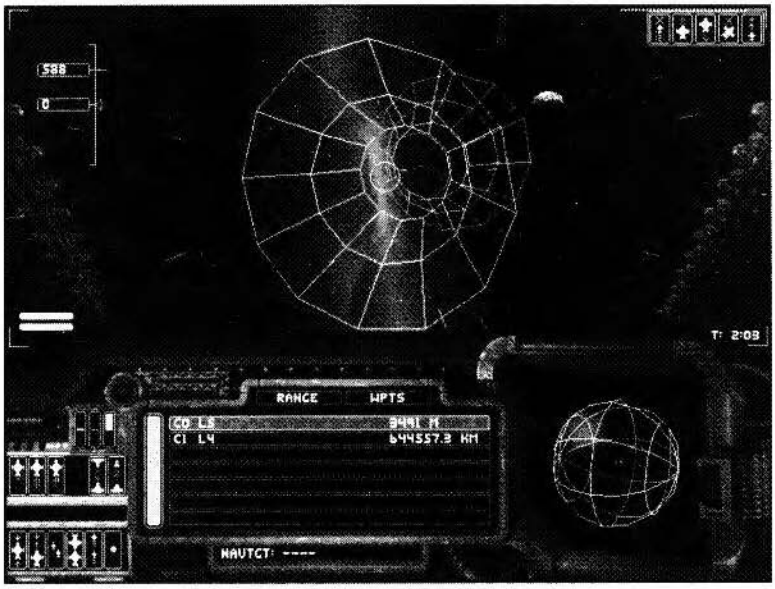
The Capsule Drive enables the ship to make near instantaneous faster-than light (FTL) jumps between stars.

The technique for triggering the Capsule Drive is that you pass through a LaGrange Point in a specific direction. You will then pass through Capsule Space to the Jump Destination. (*See jump diagram*)

NOTE: See the technical section for details how the Capsule Drive systems operates.

Navigating to the LaGrange Point (LP)

Usually you will select the nearest LaGrange Point (L-Point) on the NAV workstation as your current Target, and use the Approach autopilot to get near the point. As you get close, if you are in WPTS Registry Filter you will see the diabolo HUD symbol resolve itself. You must always go through the L-Point toward its parent planet. This is made clear for you on the HUD as a blue side and a red side to the symbol. Go through from the blue to the red side. Line up so that the ship is a couple of kilometers away, lined up down the axis of the L-Point. If you are lined up correctly you will see the planet through the L-Point HUD symbol.



Accelerate to about 750m/s and pass through the point. You should make the capsule jump as you pass through. In the vicinity of the LaGrange Point, an icon panel will be displayed at the top-right of the screen. This is to assist you in the task of navigating the point correctly. To make a successful jump, a number of conditions will have to be fulfilled. Each icon will light up green when one of the conditions satisfied. All the icons must be green to make the jump. From the left they are:

Conditions for jump to occur

LDS OFF	You cannot make the jump when in LDS mode
LOW SPEED	You must have a speed greater than 100m/s
HIGH SPEED	You must be travelling less than 2500m/s
ORIENTATION	You must pass through from blue side to the red side
RANGE	You must be close enough to the center of the L-Point

NAV: Using Autopilots

The shipboard computer can assist with many basic piloting operations, and there are several preset autopilot functions that can be called up with a single key press:
Auto pilot functions are particularly useful in the following circumstances:

- Bringing the ship to a rapid halt
- Approaching a distant point (especially when using LDS)
- Docking with a space station or another ship
- In combat, matching velocity with an enemy ship while bringing weapons to bear.

Autopilot Functions

Action	Key	Notes
Auto Stop	F5	Brings the ship to a halt. Program terminates when ship halts
Auto Approach (the target)	F6	Get closer to the target. Program terminates when near target.
Auto Formate (with the target)	F7	Maintains fixed position with respect to target. Never terminates – continues to hold position
Auto Dock (with target)	F8	Docks onto the target. The program terminates when docked
Auto Match-Velocity (with target)	F9	Tries to match the velocity of the target. Never terminates - continues to velocity match. In this mode the yoke continues to function

You can use A and Z to override the autopilot and adjust position.

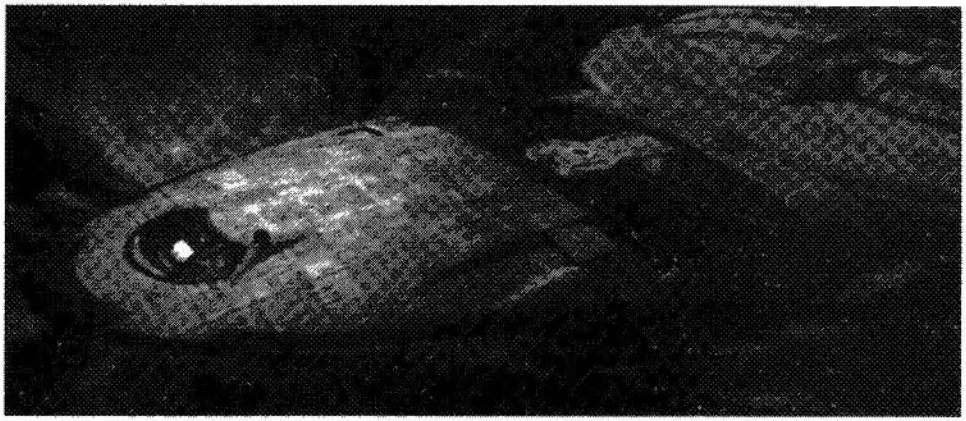
Cancel Autopilot	ESC	Cancel Autopilot. Resumes manual control.

NAV: Separating the Command Section
(Advanced Feature)

The bridge area on the ship is fixed in a detachable subvessel (called the command section). The command section makes a small, and not very rugged space vessel, but there are occasions when detaching the bridge is desirable.

Detaching the command section

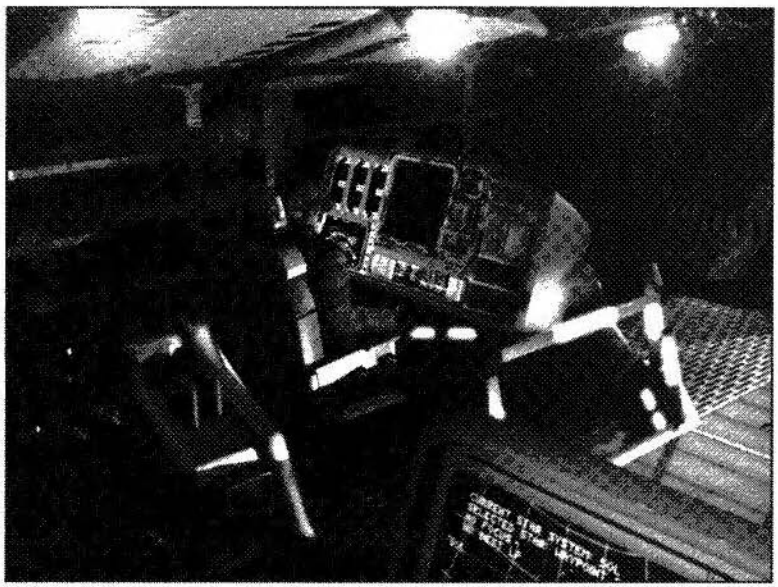
Function	Key
Detach	C (Press twice)



Game Guide: Workstation 3: WEP

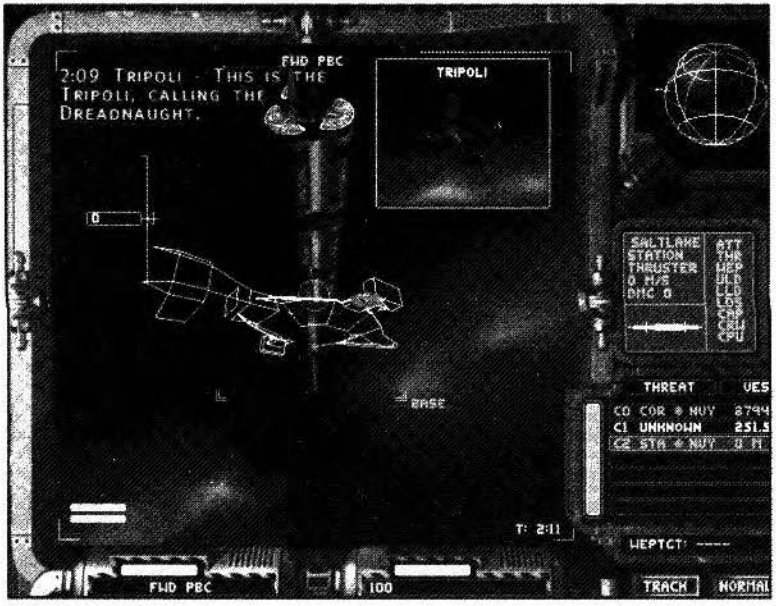
The Weapons Workstation (WEP) is where the ship's gunner sits.

The WEP workstation offers a number of specialist combat options and a 360-degree field of view capable of locking onto the most evasive enemy ship.



WEP: Selecting the WEP Workstation

To select the screen use < <F3>> or in the virtual bridge: the WEP workstation is on the port (left) side of the bridge area.



Selecting the WEP Workstation

Function	Key
Select WEP Workstation	F3

WEP: Full Screen Mode

If you need to see a full-screen view, you can press the <<TAB>> - to get full-screen mode. This offers the player a much larger visual area – but the player will sacrifice the view of some instruments in doing this.

WEP: Summary of the WEP Workstation

The screen normally operates in a target-locked mode, which fixes the target ship at the center of the view. This means we can observe the target even if the target ship is behind the player's vessel. This is sometimes referred to as a padlock view. You can also set the view to a fixed forward view more suitable to dog fighting maneuvers.

The WEP screen offers some unique combat options including: Ripple-fire mode. Ripple-fire mode is a powerful way of attacking several enemies simultaneously.
This section covers the following areas:

- A general section on using weapons
- Several sections on the display itself

WEP: Using Weapons

The weaponry system concepts are very simple. It uses a single fire button and a single target.

To fire on an enemy ship simply press the fire button.

In a more general context the process is:

1. Select the correct weapon system. (Either a cannon or missile)
2. Designate the appropriate target
3. Fire the weapon at the target.

Combat Functions (Advanced)

Function	Key	Joy
Select Cannon Weapon	ENTER	Joy Button 3
Select Missile Weapon	BACKSPACE	Joy Button 4
Designate Central Contact as Target	T	Joy Button 2
Designate Nearest Enemy as Target	R	
Designate Last Attacking Ship as Target	Q	
Designate Nearest Weapon as Target	W	
Cycle Enemies	E	
Cycle Contact Up	<	Joy Hat Down
Cycle Contact Down	>	Joy Hat Up
Designate Current Contact as Target	/	Joy Hat Right
Fire Cannon or Missile	SPACE	Joy Button 1
Fire LDSI missile	I	
Fire Flare	DEL	
Select Ripple Fire Mode /Select Normal Mode	F	
Instant Shield	*Key Pad 0 (INS)*	

WEP: Weapon Systems Overview

The following section covers the offensive and defensive systems available. These are:

- Particle Beam Cannon
- Missile Systems
- Shields and spoofing systems
- Advanced and additional weapons

WEP: Combat systems 1: Particle Beam Cannon (PBC)

The Particle Beam Cannon (PBC) is the most direct, powerful and simple weapon system available.

The energy production method of the ship is based around a large particle accelerator ring. The PBC taps high-energy particles directly from the ring and directs them at the target as an intense bolt of particles.

This weapon has the following ***advantages***:

- It is renewable – there is no limitation on the number of times it can be fired
- It is very destructive – at close range a PBC bolt can cause severe damage to a target. Smaller vessels can be destroyed with a single impact.
- Ease of use – the PBC in normal mode uses computer-assist to track the target. As long as the target is within the cannon's field of fire, high levels of accuracy can be maintained.
- Its speed – the PBC can be used to take-out incoming missiles and mines.

Its ***disadvantages*** are:

- Range – The particle bolt disperses over distance. Over 0-4 kilometers the PBC is very effective, but at more than 10 kilometers the effect of the cannon is negligible.
- Scope – A particle cannon can only fire at a target within its field of fire, limited by the swiveling gimbal PBC mounts.

Wep: Combat Systems 2: Missiles

The ship's secondary offensive capability comes in the form of missiles. The user can select a target and launch, what is in effect a self-guiding, self-propelled spacecraft to deliver a weapons payload directly into the target.

The ***advantages*** are:

- Range – Missiles can hit targets well out of cannon range
- Scope – A missile can be directed at any target, irrespective of its direction from the ship.
- Fire and Forget – It allows the player to engage many targets.

The ***disadvantages*** are:

- Quantity – Only a limited number of missiles can be held in the ship's magazines.
- Evasion – A suitably equipped ship can evade a missile by repeatedly avoiding the impact until the missile runs out of fuel.
- Interception – The missile can be shot down by cannon.
- Spoofing – The missile can be misdirected to hit an ECM-Flare instead of its target.

Missile Types

Seeker Missile

This is the standard form of missile issued to Navy vessels. It locks onto the designated target's emission signature and homes in using thruster power. Can be evaded by fast turning targets which cause the missile to overshoot and eventually run out of fuel

LDSI Missile

This missile is specifically used to knock ships out of LDS mode, enabling combat to take place. Works by pursuing the target to a certain range, then exploding with a subspace pulse which disrupts the operation of LDS within a specific range for a certain time. Should be used with care, as you will not be able to use LDS either.

REM Missile

This missile is physically similar to the standard seeker type, except when launched, a remote (REM) link is instantly made to the missile, and it can be flown manually to the target, enabling specific target areas to be hit. It has a larger than normal warhead.

Disruptor Missile
This missile seeks the target automatically, but when it explodes it disrupts all the target ship's systems for a limited length of time. The effect can be observed as a blue field running along the body of the affected ship.

Multiservice Drone
This is a drone that fits in a standard magazine, but can be fitted with various load-out packs for mission specific tasks.

Reconnaissance Drone
This drone is launched at a target vessel and manually flown in a similar way to the REM missile. On hitting the target it latches on with powerful effector fields and can be used to track targets beyond normal sensor range

Ripple Fire Mode
This unique feature to the Weapons Console allows the release of missiles at many targets with minimum effort. The computer automatically selects the next enemy target on the contacts list as each missile is fired. This results in a highly effective weapons system whose primary use is to cripple multiple enemy ships when you are outnumbered.

Use the <<F>> key to select the ripple fire mode. An on screen indicator will reflect the current fire mode.

WEP: Combat Systems 3: Shields and Spoofing
Protecting the ship from damage is a vital part of combat. The ship has two main technologies for achieving this.

1. Shields
2. ECM Flares

WEP: Shields

The shields operate entirely automatically. Shields prevent impacts by either cannon or missiles by disrupting a small area of space in front of the shield projector. The effect is to disperse the incoming weapon into its constituent sub-atomic particles, strong magnetic fields channel the particles over the hull of the ship rendering the weapon inoffensive.

A missile or cannon hit, which is blocked by a shield, will result in a characteristic blue flash of light. Successful weapon hits result in a yellow/white flash. The corvette vessel has two such shield projectors: one covering the upper hemisphere, the other covering the lower hemisphere of the ship. However each shield can protect against only one attacking vessel.

NOTE. The understanding of shields in combat is worthy of its own section. See the Combat Guide for more information on Shield usage.

Shields can offer some benefit in minimizing the damage of impact. Ramping up the magnetic fields to full power can result in a strong repulsion effect – although the mechanism can only be sustained for about 1 second.

Use the Instant Shield key <<KeyPad 0 INS >> just prior to a collision to minimize damage to the ship.

ECM Flares

The other defensive system is ECM Flares. These devices broadcast the characteristic EM fingerprint of the ship, sufficient to mislead the seeker logic on board most missiles. Launching an ECM Flare may protect the ship from incoming missiles. The missiles are misled into intercepting the flare. Impact with the flare neutralizes the missile.

If you are anticipating a missile impact, use the Launch ECM Flare key <<DEL>> to launch a flare. The ship's computer may choose to launch ECM flares automatically if you are under heavy missile fire.

Wep: Weapon Systems 4: Advanced and Additional weapons

The tactical division is constantly developing new weapons technologies, many of which will be fitted to your ship in the course of your career. Get used to scanning the DOC folder of your ship to read the usage tips in the Weapons section.

WEP: Display Modes

Track

By default, the WEP-screen is set to the padlock-style track-mode. In this mode the screen is locked to the current contact (CC).

Locked

Alternatively the screen can be set to a forward-looking locked mode. To toggle between these modes use the mouse to click on the on-screen Track/Lock button or press the <<Right-Shift key.>>

WEP: Orb

The orb 3D radar operates in the WEP workstation in exactly the same way as it does in the NAV workstation.
See NAV: The Orb

WEP: Weapon Status Display

Along the bottom edge of the main screen are the displays that show the status of the current weapon:

We see:

1. Currently selected weapon. In this case Particle Beam Cannon.

2. Repair Status. A full bar signifies fully operational condition.

3. Quantity of the weapon (quantity of weapon in the ships stores) PBC shows 100 (meaning fully loaded)

4. Reload status. This display shows the progress in re-arming the weapon after it is fired. The re-arm time will vary depending on the weapon type.

WEP: Gunnery Headup

The head-up display for the WEP Screen is very similar to the NAV head-up. All indicators and contact markers behave in the same way.

In addition we also get a wire-frame display, showing a see-though image of the player's ship. This has been made transparent, to not obscure the target. The wire-frame ship will change color according to the current hull damage, with red indicating an imminent hull breach.

WEP: Contact registry

The WEP screen also includes a contact registry identical to the NAV display. It differs only in that in the WEP display the list is sorted by level of threat by default. See description under the NAV workstation for full details.

Game Guide: Workstation 4: ENG

The Engineering workstation displays the internal functioning of the ship, and can be used to direct the repair teams to specific systems. In addition the engineering workstation can be used to make adjustments and manipulate some of the low-level systems on the ship. Repairs to vital systems are performed automatically whether or not you use this workstation.

ENG: Selecting the ENG Workstation

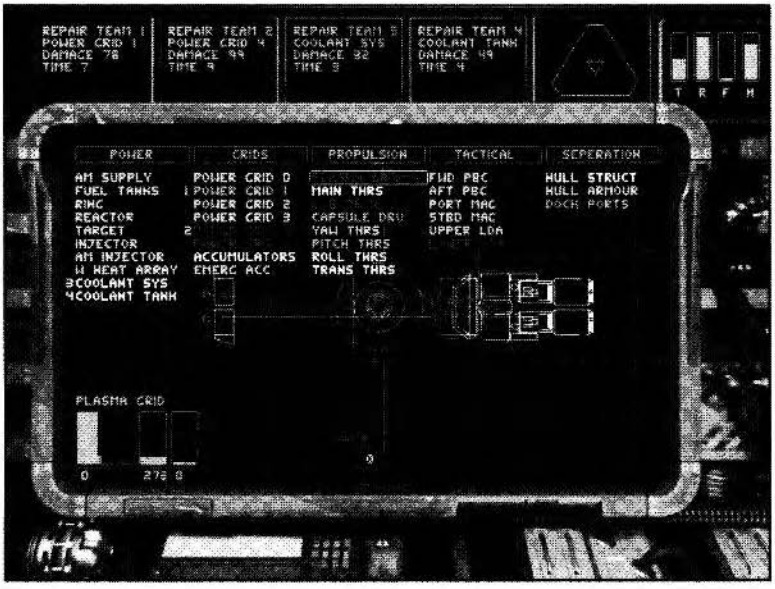
To select the ENG workstation, press the << F4>> key or if you are using the virtual bridge, the ENG workstation is located at the starboard (right) side of the bridge.

Selecting the ENG Workstation

Function	Key
Select ENG Workstation	F4

ENG: Workstation Layout

The layout of the workstation is very simple. The main monitor displays a schematic top-down view of the ship. The four sub-monitors across the top show the progress of each of the repair teams. A fifth small monitor on the top right shows an at-a-glance summary of the ships status.



ENG: Main Display

The main engineering display lets you examine the internal layout of the ship, and effect repairs to individual systems. The main monitor shows a top-down schematic view of the ship in wire-frame graphics. This display can track into any part of the ship to show a more detailed close-up view. To look at any component of the ship, click on the component name using the mouse. The screen should zoom into that component and it will start to flash. This will make it the selected component.

The view groups the internal components of the ship into five component categories:

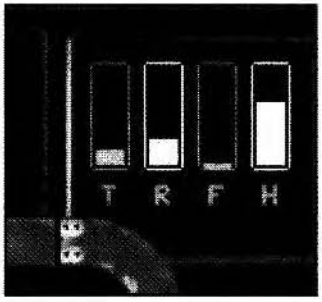
- POWER GENERATION
- GRIDS
- TACTICAL
- PROPULSION
- SEPARATION

Across the top of the screen are five filter buttons bearing these labels. These can be clicked on or off removing (filtering) those components. This is useful in reducing the complexity of the display.

ENG: Status Display

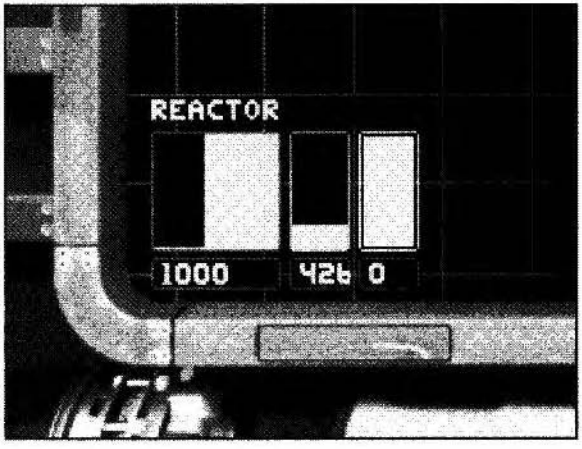
The status display is a small monitor mounted above and to the right of the main display. This screen holds four indicators; each shows a simple summary of one of the ships main systems:

System Label	Meaning	Interpretation
T	Temperature	Heat build up in waste heat array. (low is good, high is bad)
R	Reactor	How much power the reactor is putting out.
F	Fuel	Amount of fuel in the ship. Low is bad
H	Hull Integrity.	Integrity of the hull. Up to the top 100% is good.



ENG: Selected Component

At any time, just one of the components is the selected component. The selected component will flash on the blueprint. A display in the bottom left corner gives some status details on the selected component.



The larger box displays a moving graph of the output from that component. The numeric underneath shows the current output value (0-1000). The following box is the current temperature, and below is the numeric value. The last box show the repair status. A full green bar indicates full

functionality.

ENG: Repairing Components

An on-screen overlay lists all of the ship's components. (Each of them underneath the appropriate component category.) For instance the component Yaw Thrusters appears in the Propulsion category.

Note: For what these systems actually do and how they interrelate see the technical guide.

When everything is working properly all the component names will appear in white. However if you sustain damage this will change: Components are color coded to denote the level of damage.

Damage Level Table

Undamaged & Functioning	White
Damaged but Functional	Yellow
Severe Damage (not working)	Red

There are four repair teams available on the ship to effect repairs to damaged systems. With no intervention from the user, the repair crews will methodically work through all of the damaged systems one by one. If many systems are damaged, priority is given to components on the left. In other words, power generation is given greater importance than weapons. This is sensible because without power the weapons would not be able to fire. Nevertheless, depending upon the circumstances, the player may wish to prioritize a repair to be performed immediately. For instance, if you need to flee the scene of a battle to make time for more repairs, you will probably wish the LDS drive to be available.

To order an engineering team to repair a specific component, click on the component name and drag the component name onto one of the repair team monitors. This can also be done by moving the repair cursor around with the cursor keys, and pressing keys 1-4 to allocate that component to team 1-4.

Game Guide: Communication

Throughout the game, your bridge crew and the crew of other vessels may need to communicate with you. This forms an important part of the game, and you should listen closely to what these characters say. It may prove vital!

Communication occurs in a number of circumstances:

- Your bridge crew will need to give you reports as important situations arise.
- Depending on their own expertise, the crew will offer you advice and guidance.
- The crew may need you to make a decision and ask you to do so.
- The crew of other ships may need to talk to you.

Non-Interactive Communication

Communication with the bridge crew takes place through a video link. A moving image of the speaker appears on your screen.

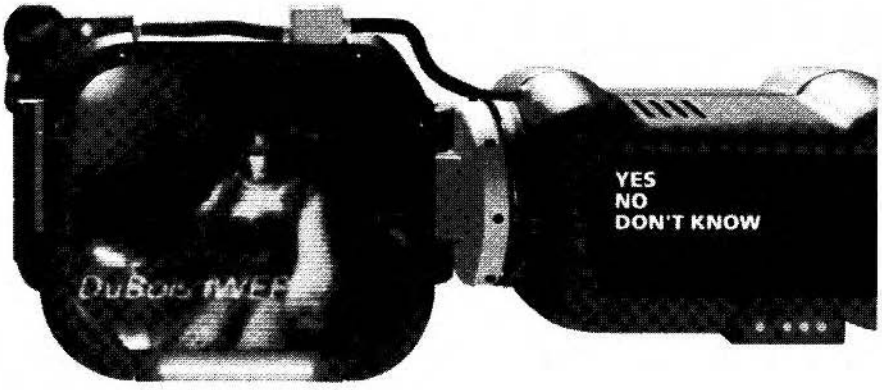
Communication with the external ships is performed by audio only (like a radio). However a real-time image of the speaker's vessel will be displayed.

There are two kinds of interaction that may occur. If a speaker wishes to talk to you, but expects no response, you will see and hear the speaker – but no action on your part is required.

Interactive Communication

If however the speaker expects you to respond in some way, then the ComArm swings onto the screen. The ComArm is a communications device for holding two-way conversations. It holds a screen, a camera and a small keypad/text display.

The speaker will talk to you and wait for a response. At this point the keypad/text display will list a number of potential responses, summarized down to one word. To make one of the responses, click on it using the *mouse*.



Com Arm Functions

Function	Key
Com Arm off	Shift-V

If there is only one sensible response for the player to make then no action needs to be taken; the player's character will respond automatically.

Game Guide: Communication: Wingmen

You can enlist other ships as wingmen and then order them to join you in formation, attack other vessels, or defend important ships. Effective use of wingmen, in assisting you to meet your goals is a vital part of the game.
(You can practice using Wingmen in the Mission WEP Advanced)

Using Wingmen

You can control wingmen using a simple numerical code. Each number represents a specific order. Don't worry if you can't remember the code. Pressing Key <<Key 0>> brings up the menu of commands. The menu does not need to be on-screen for the command codes to work.

Wingmen Commands

Function	Key
Bring up wingmen menu (this menu)	Key 0
All wingmen report status	Key 1
Join formation with me	Key 2
Attack my target	Key 3
Defend my target	Key 4
Join formation with my target	Key 5
Halt	Key 6
Retreat	Key 7
Dock to my target	Key 8

Enlisting Wingmen

Before you can use a wingman, you need to see who is available: Pressing Key <<Key1>> will get all available wingmen to report in.

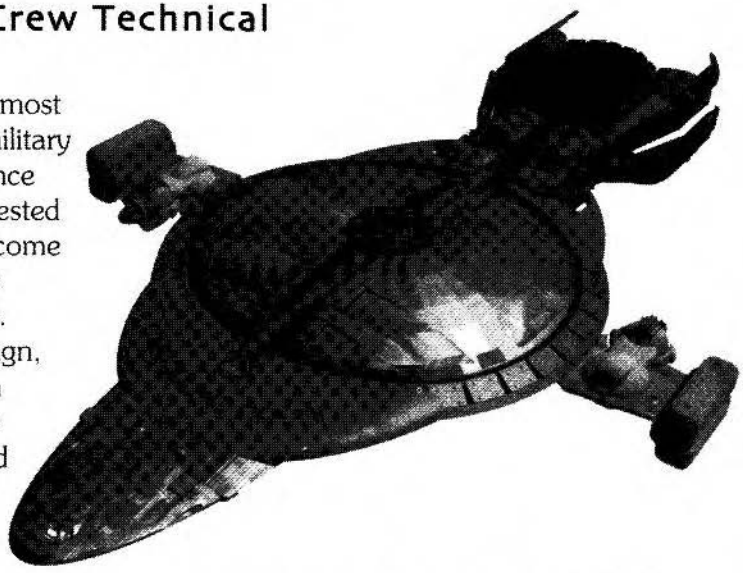
Issuing Commands

To issue a command to all your wingmen, simply press the appropriating number key. The system is simple. If you then want your wingmen to join in formation with you, press key <<2>>. If you then want them to attack a specific base, designate the base as your target and press key <<3>> The wingmen will then engage the base, leaving you free to do something else. If they succeed in their objective, the wingmen will come back into formation unless you issue another order.

Technical Guide:

NSO929:Dreadnaught Class Corvette

Flight & Service Crew Technical Introduction



The NSO-929 is now the most successful medium-sized military vessel in active service. Since the prototypes were first tested in 2255 the vessel has become the main workhorse of the Commonwealth Navy fleet. Despite the age of the design, and competition from both larger and faster ships, the modest operating costs and high reliability of the '929 mean that there are now some 194 vessels in active service. Orders for the latest revision, the 929-f are currently being filled.

As a crew member on a Dreadnaught class ship you'll experience first hand just what a remarkably flexible and reliable vessel this is.

Manufacturer:	**NSO Industries (Shipbuilding)**
Part Number:	NSO-929x
Operating Category:	Corvette
Class Designation:	"Dreadnaught"
Unladen Tonnage:	184520 Tons
Max Stable Power:	1.3x109W
Beam Length:	162.3m
Fuel Capacity: Tons	6.04G
Max LD drive Rate:	.377c
Crew Capacity:	45+4
Turnaround - Service Cost:	189,000 ECU

Technical Guide: Main Features

Following incidents during the early days of space warfare, it became clear that the investment in the crew of a vessel, was every bit as important as in the physical hardware of the ship itself. For that reason it became important for the design of the ship to provide a means of escape for crew-members in the event of a serious incident. For this reason, the technical and bridge crew can escape the ship in sub-vessels; the bridge crew in the command section and the technical crew in the accommodation modules.

SUB-VESSEL SEPARATION

This section shows the ship divided into its individual sub-vessels. We will look at each of the sections individually.

Vessel Components	
Main Hull Section	x1
Command Module	x1
Accommodation Modules	x2

MAIN HULL FEATURES

The main hull section is the main body of the ship without sub-vessels attached. This section includes:

- The Engine Section
- The Waste Heat Array
- The Lower Saucer.
- Fuel Storage section
- The Universal Docking collar
- The Weapons pylons

Engine Section

This houses the reactor assembly, antimatter reserve and maintenance crawl spaces. In normal circumstances this section is too hazardous for crew members.

Waste Heat Array

The nature of the reactor assembly naturally generates enormous amounts of unwanted heat. A series of vanes radiate waste heat to space. A liquid metal coolant transfers unwanted heat from the collider chamber to the waste heat array.

Lower Saucer

The main two fixed decks of the ship are on board the nondetachable lower saucer section. The lower saucer also houses the grav-driver, which produces the capsule effect allowing the vessel to travel faster than light.

Fuel Storage Section

Fuel is stored in a compressed liquid form in subdivided tanks at the forward end of the saucer.

Universal Docking Collar (UDC) Core

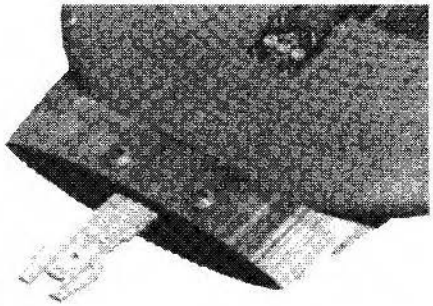
The very center of the ship is a cylinder that forms the hub of the circular hull. At the top and the bottom of this cylinder is a universal docking connector. This connector allows the ship to form an airtight seal with other vessels - even if the other vessels have damaged or different docking equipment.

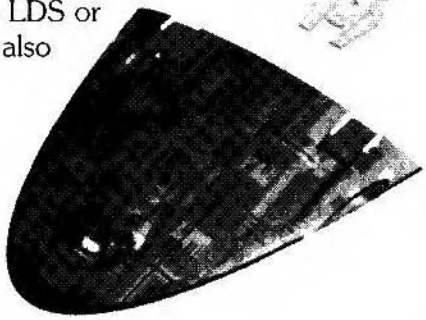
The docking collar uses magnetic clamps to hold on to another vessel and is shock-mounted to absorb the energy of collision. Once joined, the UDC is large enough to allow crew, fuel, weapons and stores to pass through the hatch.

Port & Starboard Pylons

The stubby wing-like pylons were added to the ship's design to provide mounting points for weaponry and other equipment.
In the corvette you will observe the forward and rear Particle Beam Cannon (PBCs) and the wing-tip weapons magazines.
The pylons are also where the roll-thrusters are located.

COMMAND SECTION





Command Module NSO-401
This section of the ship houses the command crew and the ship's main CPU package. The command- section is an autonomous space vessel. With limited thruster capability, it does not have LDS or capsule drives. It is also unarmed.

The ability of this module to act as a vessel is limited to emergency circumstances. In operation the command section can serve as the bridge for a number of different vessel classes. It can act as bridge for the 929 series - and also serve as the bridge of the 989 (Patrol Combatant) vessels.

Length: 25.70m
Width: 29.5 m

ACCOMMODATION MODULES: NSO-420.. NSO-429F OR LAPLACE C SERIES

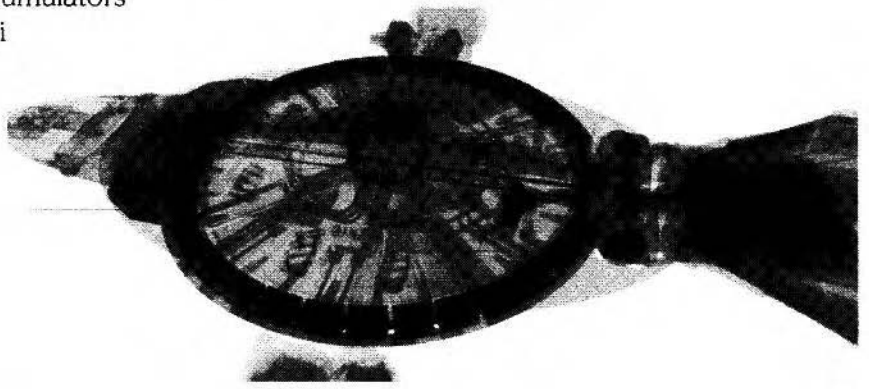
The main hull can accommodate two semi-circular support modules that normally provide crew accommodation: Once again these modules are usually equipped with a propulsion system which roughly equates these vessels with a Class 2 shuttle. These two detachable sub-vessels can carry 43 crew members each. In normal circumstances, they form the upper-surface of the saucer.

Length: 32.87m
Width (wingspan):71.5 m

Technical Guide: Energy Production

(captions)

- Ring
- Waste Heat
- Fuel
- Reactor Assembly
- Accumulators
- Anti



Ring

All NSO vessels use modified El-Baz ilc.
collider components. The collider ring provides the main power source for the vessel and can produce a steady power output of 1.85GW. The collider forms a circular shape and is the largest single structure of the vessel.

Fuel

(Liquefied Fusion Premix) LFP is charged and injected into the ring though the main injector. The charged particle stream is progressively accelerated by magnetic fields produced by the 36 accelerator cells.

Reactor Assembly

Accelerated particles then pass into the reactor chamber where they impact on the reaction surface: spongiform Neutronium. The fusion takes place within the pits within the reaction surface. The released plasma is at a temperature of 12,000,000K.

The process yields two usable energy sources in the form of high-energy plasma and electrical energy. The plasma is channeled into the plasma grids to provide thruster propulsion. The electrical reaction direct current flow of over 1 million amps at 1000 V providing power to drive the ring action method, as well as maintenance of life support, active plasma containment.

Reserve Antimatter subsystem

In the event of a ring failure some vessels can make use of the backup antimatter subsystem. This method can maintain power output even if the main ring is damaged. The antimatter reserves are usually small, but very high levels of power output are achievable. The severe damage to the reaction surface also limits the time for which this method can be used.

Accumulator Subsystem

The ship keeps an energy reserve of electrical power in the main accumulator. This can provide electrical power in the event of a temporary failure of the main collider system. The total energy reserve is quite small and cannot maintain magnetic storage of antimatter or plasma containment for any significant lengths of time. The accumulator can provide power for communications and life support for several days. The accumulator is also important to provide power to start-up the reaction process.

Waste Heat

The science of thermodynamics governs any energy using system. Heat dissipation ultimately becomes the limiting factor in energy usage.
The ship has two heat dissipation methods:

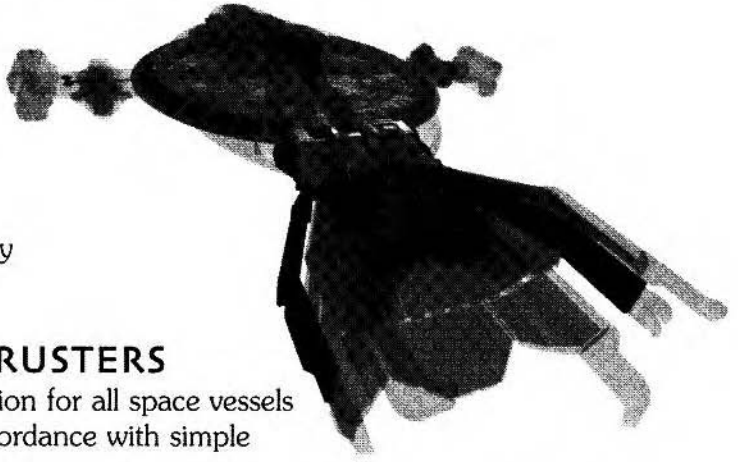
1. Semi-passive (using the waste heat array or radiator at the aft end of the ship). Circulating coolant from a reserve shifts waste heat from the reactor to the cooling array. The coolant is a sodium metal alloy with a very low melting point.

2. Active. In emergency circumstances an active cooling system can be kicked in. By venting hot coolant into space the cooling efficiency can be dramatically increased albeit for a short period. The coolant reserve is quite small.

Technical Guide: Propulsion

The ship has three different propulsion systems; each used for different types of motion.

- Thrusters
- LDS Propulsion
- Capsule Drive & Theory



PROPULSION: THRUSTERS

The main forms of propulsion for all space vessels are simple thrusters. In accordance with simple

Newtonian physics, thrusters operate by emitting a reaction mass and causing the vessel to accelerate in the opposite direction. A set of thrasher vents on the NSO 929 emits plasma at high speeds under pilot or computer control.

On the Dreadnaught class corvette, thrusters are used both for translation (movement through space) and rotation (change in vessel attitude). The thruster arrays provide the vessel with a high degree of maneuverability as well as straight-line acceleration of more than 6 G. The plasma grids contain the plasma at a high temperature/pressure and allow the plasma to be channeled from the reactor to the thruster vents. The plasma is contained within ducts that use the magnetic bottle principal to prevent thermal escape.

PROPULSION: LINEAR DISPLACEMENT DRIVE SYSTEM (LDS)

Since the first Linear Displacement technology was first pioneered in 2034 the propulsion method has been progressively improved to offer speeds approaching that of light. This well-understood method exploits a trick in influencing space-time in a tiny localized area. The displacement effect causes a minute reorganization of space. Any matter in the dis-

turbed region of space is effectively moved by a small amount. This tiny light-speed jump is the basis for the LDS system. By repeatedly exploiting this effect, millions of times per second, interplanetary travel becomes rapid and affordable.

The linear displacement drive system (LDS) consists of a set of field generators. Each generator creates an ellipsoid-shaped field. Several synchronized field generators are scattered throughout the ship to produce a single field, which encompasses the entire volume of the vessel.

LDS can only propel the vessel in one axis (along the Z-axis of the ship).

When using LDS, thrusters are still employed to effect change in attitude.

PROPULSION: CAPSULE DRIVE SYSTEM

Neither thrusters nor LDS provide particularly convenient method of interstellar transport. Using either, the journey time between stars would be measured in decades. The capsule drive allows near instantaneous (faster than light) interstellar travel. The capsule drive surrounds the ship with a small space-time bubble or capsule. The capsule is independent of main space-time. This bubble can be rejoined to a distant point in normal space and re-integrated. This means the vessel effectively jumps from one location to another without passing through the intervening space.

The process of producing a self-contained space-time capsule requires very high energy levels. The amount of energy required becomes impossibly high within a normal gravity field. For this reason capsule drive is constrained to jumps between suitable LaGrange points within solar systems. Put simply, LaGrange points are sites where the gravitational field of two bodies cancels each other out. Capsule collapse theory shows how these smaller universe bubbles are rapidly drawn back into main space-time. This limits the distance which can be covered in a single jump. The grav driver coil at the lowest part of the lower saucer generates the massive space-time capsule field.

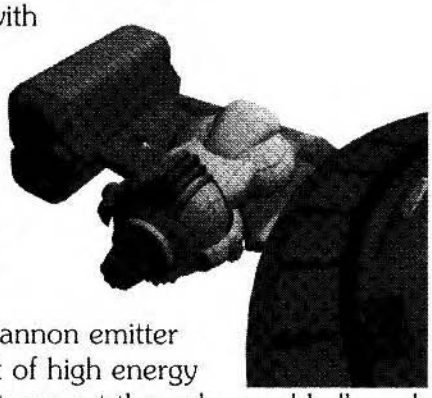
During the process of jumping, ships cannot receive or transmit messages because they are, in effect, in a small universe of their own.
To prevent collisions, convention dictates that ships using LaGrange points pass through them in a proscribed direction and at well-defined speed limits.

Technical Guide: Weapons & Shields

This system presents the offensive and defensive systems on the ship. The corvette has three main systems that are for use in combat.

- Particle Beam Cannon
- Missile Magazines
- Displacement Shields

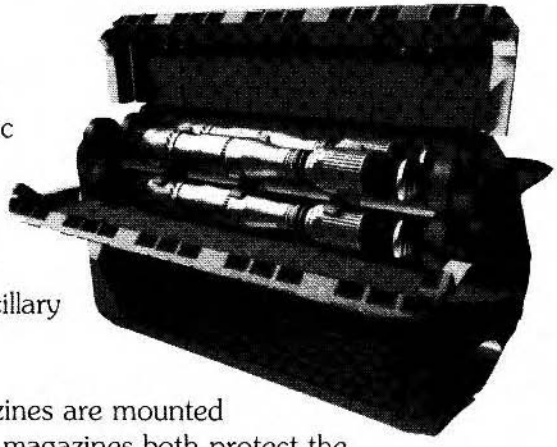
PARTICLE BEAM CANNON



The Dreadnaught class corvette is fitted with two particle beam cannon (PBCs) mounted on the port and starboard weapon pylons. Charged particle flux is tapped from the main collider ring and diverted into the PBCs via a spur channel and then held in a small accumulator ring. With the accumulator ring full, the gunner can fire the cannon at will.
The particle charge is neutralized at the cannon emitter point. The discharge delivers a heavy bolt of high energy particles, capable of delivering a blast that can cut through vessel hulls and vaporize smaller ships.

The cannons are mounted on a gimballing mechanism, which offers an angle of fire of around 20 degrees.

MISSILES & MAGAZINES



As a multi-role vessel, the corvette basic design is challenged with commercial, military and scientific purposes to fulfill. To meet such a diverse range of challenges the ship is equipped with a general system for the attaching of ancillary equipment.

In its military role, two weapons magazines are mounted on the port and starboard pylons. The magazines both protect the

payload and conceal their contents. The upper half of the magazine serves as both storage space and houses the selection assembly. The lower half of the magazine features launch-tubes, allowing missiles to be launched directly out of magazines. The standard form-factor for missiles allows the magazines to house a wide variety of missile and probe devices.
These include:

Missile & Drone Classes

Type	Warhead	Logic	Propulsion	Notes
Seeker Missiles	Micro Fusion	Pursue	Thruster	Basic fire and forget warheads
Remote Missiles	Heavy Fusion	Remote Control	Thruster	Weapon delivery system that offers a remote control interface. Allowing the crew to guide it to the target.
LDSI Missiles	Inhibit Field Projector	Pursue	LDS Drive	System allowing ships to be intercepted when using LDS. Missile is equipped with a small LDS drive. The missile pursues the target at high speeds then projects a LDS Inhibit field, forcing the target to use conventional thrusters.
Mini Service Drone	Manipulator & robotics assembly	Remote Control	Thruster	A robotic repair vessel which can be launched like a missile. It may be remotely operated for to perform external repairs etc.

Type	Warhead	Logic	Propulsion	Notes
Recon Probe	Camera & Sensor Array	Remote Control	Thruster	Missile like device, used for remotely gathering reconnaissance.
ECM Flares	Broadband EM Emitter	Spoof	Thruster	A defensive system. ECM flares are spoofing devices that are intended to lure incoming missiles into the flare and away from their intended target.
Disruptor Missile	EMP Pulse Generator	Remote Control	Thruster	A weapon which discharges energy in the form of an electromagnetic pulse (EMP) rather than an explosive blast. The pulse should scramble the electronic systems of the target ship for a short period. A powerful weapon against larger ships. The period of disruption may be long enough to commence a conventional assault.

SHIELDS

The NSO 929 is also fitted as standard with two Displacement array shields fitted on wide swivel mountings. Although provided as a defensive mechanism, they may be used offensively, albeit at close range.

The principle of linear displacement has been used as a method of propulsion for over 200 years. Its potential as a defensive device is a more recent innovation. The shield array projects a steerable region of disrupted space. Radiation or material passing through that space is displaced in random directions by amounts of up to 100meters.

The shields region of disruption can be between 100m to 200m from the array itself. The region can vary in radius between 2 and 10 meters. The newest shield arrays can easily block the blast from a particle beam cannon.

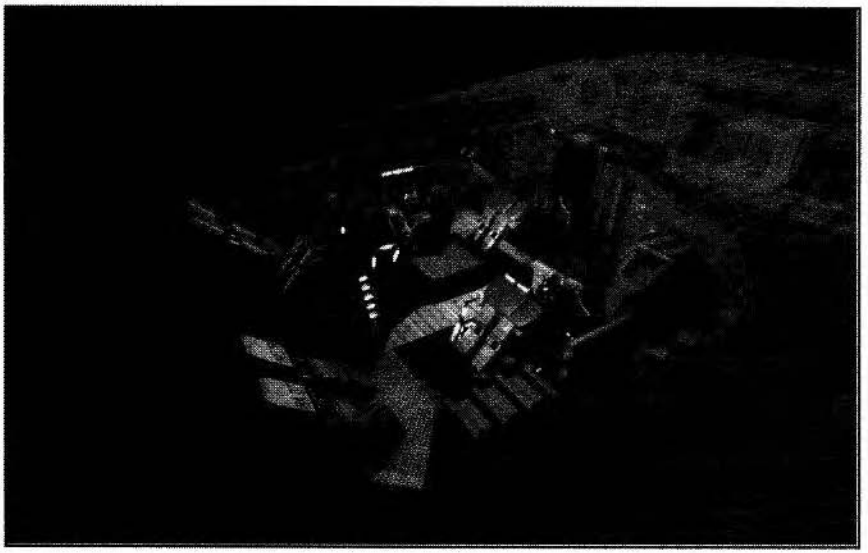
An important point to remember is that the shielding zone must be kept between the ship and any hostile adversary. For this reason, the LDA is mounted on a fast linkage mechanism which can automatically track hostile vessels and keep the ship protected. The NSO-929 is fitted with two such LDAs mounted at complementary positions - each capable of covering one hemisphere.

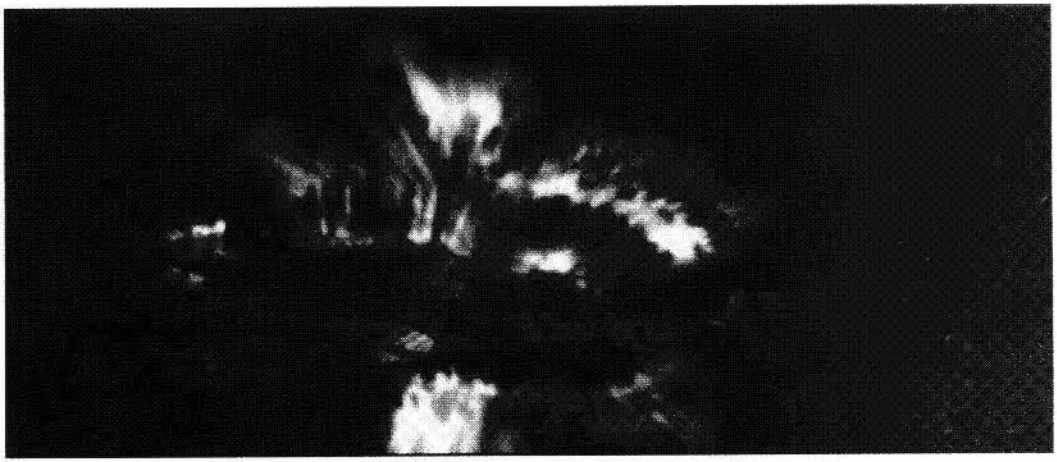
The LDA has also been used with some success as a hostile weapon at low range, by being able to displace elements of the enemy ship's hull.

Technical Guide: Bridge Layout

The bridge layout of the ship is determined by the layout of the Command section sub-vessel. Access to the bridge is achieved through the rear airlock hatch which gives access from the main corridor of the ship. Within the bridge, the crew can access the four workstations. All of the workstations feature powered flight-seats. These are mounted on hydraulic arms and actively move to absorb vibration and protect the user from impact. All seats have four belt-reels that lock onto the anchorage points built into the crew's flight suits.

- The captain's seat CMD is at the back of the bridge, allowing him clear line of sight with the crew, and also a clear view through the main view-port.
- The engineer's workstation is on the starboard side of the bridge. It is the largest single workstation, forming a C-shaped bank of displays that surround the engineers seat.
- The gunner workstation is on the port side of the bridge. The gunner workstation features a large high-resolution display
- The pilot workstation is located on a raised platform, providing him with the best possible visibility through to the front view-port
- Internally illuminated handholds are provided for the crew. These are visible even if the bridge becomes filled with smoke, and are vital in zero gravity conditions. Similarly, hand rails and steps are also illuminated.
- The bridge roof area features a set of emergency lockers. These open automatically in an emergency, such as a loss of pressure. They contain low-pressure respirators, insulation suits and medical kits.





Combat Guide

COMBAT GUIDE: INTRODUCTION

(Adapted from a series of Lectures by Admiral Tadeshi)

Mastery of ship-to-ship combat is the single greatest challenge facing any prospective starship officer. While many believe themselves up to the challenge, few have survived more than a handful of encounters. The purpose of this introduction is to present you with the most basic understanding of ship to ship combat. This understanding has come slowly over many years and at a cost of many lives.

Combat Guide: The principals of warfare

Almost every young officer comes to this place and sees the war in personal terms. They are angry. They see combat as an expression of that anger ... and I tell them to go home. There is no place for such sentiment here. The warriors who have been most successful, most victorious are those whose hearts are cold, whose minds are calm.

With each class I ask these same two questions: In battle, what is our most important weapon? And in battle what are our greatest enemies? Without fail they reply The Cannon! The Indies! They are wrong. They are answering only the most superficial question. Our greatest weapon is knowledge. If we understand our enemy we can defeat them, even from a position of inferiority. Without knowledge we are striking blindly. The battle becomes an unstructured brawl. Our greatest enemies are bravado, poor judgement and hastiness. They are all the enemies of the warrior. If we eradicate them then we can enter the battle calmly. We can observe, take decisions and act.

Combat Guide: Understanding your Vessel

Understanding begins with the self. Before studying the weaknesses in the enemy, before pawing over the tables of enemy ships – learn about your own vessel. Learn its strengths and its weaknesses. Learn each system, one by one until they seem like part of you. This is the foundation for all other learning. Without this understanding, all other information is without meaning.

Combat Guide: Understanding Our Weapons

To conduct a battle you must understand all of the resources you can bring to bear on the conflict. This obliges you to study your weapons, but there are options available to you which go beyond weapons.

Examine these tables thoroughly.

Available Offensive Options

Weapon	Description	Advantages	Disadvantages	When to use
Particle Beam Cannon (PBC)	Weapon releases focussed blast of charged particles at the target.	Computer assists in targeting the weapon	Accuracy, Power	Close Range Only. When near to target.
Rapid Fire PBC	Adaptation of PBC allows double rate of fire	Extreme Power	No aiming assist	Very Close Range Only. When near to target which is largely static.
Seeker Missile	Self propelled weapon, delivers warhead to target automatically.	Fire and Forget	Fire & Forget Range 360 degree Field of fire. Less immediate than cannon.Time for target to evade or spoof	When target out of cannon range - or cannon scope
Remote Missile	A remote missile, which offers the commander greater range and control.	Largest Range of Thruster based missiles	Requires guidance	When a target is beyond conventional missile range. For Recon.
LDSI Missile	Device pursues target using LDS and forces it to resume thruster mode.	Forces the target to battle	Be very sure you want to force the target to battle	When target is using LDS
Weapon	**Description**	**Advantages**	**Disadvantages**	**When to use**

Weapon	Description	Advantages	Disadvantages	When to use
Aggressor Shield	Shield modification does damage to enemy vessels	Can use when PBCs and missiles damaged	Very Close range (collision distances) Collision may jeopardize ship	When collision imminent
Ramming	Pilot collides with enemy ship	Can ram when everything else is broken.	Collision will jeopardize ship	Other alternatives not available.
Disruptor Missile	Impacts with enemy ship, briefly scrambling its electronics	Gives time for a full-on assault	Limited number - use wisely	Against larger vessels
Antimatter Pod	If ship has antimatter reserve, pod can be released as weapon.	Total annihilation of target	Uncontrollable once released	As last resort
Wingman Commands	Order other ships to attack	Allocation of resources		When allocated wingmen

Available Defensive Options

Option	Description	Advantages	Disadvantages	When to use
Shield	The shield arrays, block most incoming weapons	Automatic, Effective (see Understanding Shields)	Only 1 hostile can be effectively shielded by each array.	
ECM Flare	A spoofing device to mislead incoming missiles	Automatic	Limited lifetime	With incoming

Option	Description	Advantages	Disadvantages	When to use
Flight	Running away from hostile environments	Simple	You may be pursued. You expose your unshielded aft area. Other weapons damaged	
Obstruction	Place ship so that another object is between ship and aggressor.		May not prevent missile impacts. Not simple to arrange	
Evasion	Out turn or out run enemy	Simple		
Cannon	Cannon can be used to shoot out incoming missiles	Missiles are easily destroyed	Difficult to achieve. May be leaving ship open to other attacks	Incoming missiles.
LDS	Brief use of LDS can be used to evade incoming weapons	Simple	You may be pursued. LDSI missile or static LDSI field can disable LDS.	
Wingman	Assign Wingman in defensive role			When wingmen available

Combat Guide: The Four Elements of Space combat

The following section breaks down space-combat into four key elements.

- Shields
- Cannon
- Missiles
- Placement

No one element is more important than the rest. Keep them in balance and observe the rules.

Combat Guide: Understanding Shields

No other technology is more misunderstood than shields. Many seem to believe that shields project some kind of all-encompassing blanket of protection around the vessel, protecting it from harm. Nothing could be further from the truth. In many ways being able to exploit shield strengths and shield weakness is the key that opens many combat opportunities.

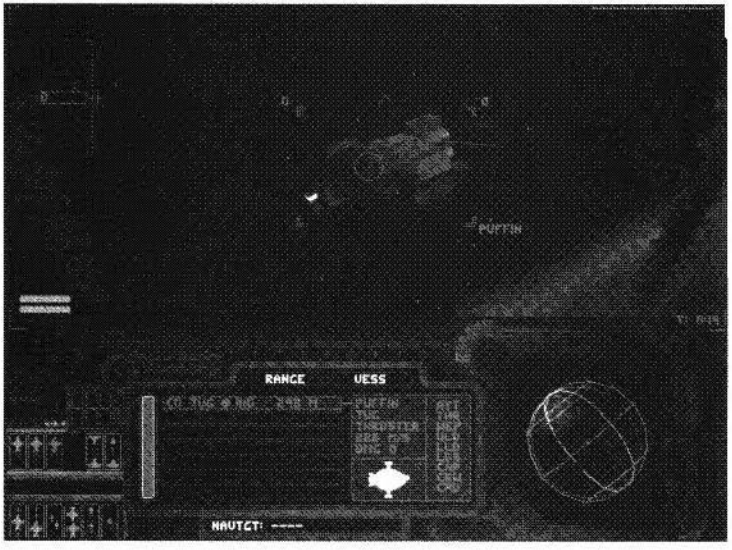
(See Technical Guide: Shield Technology)

Combat Guide: Shield Tactics

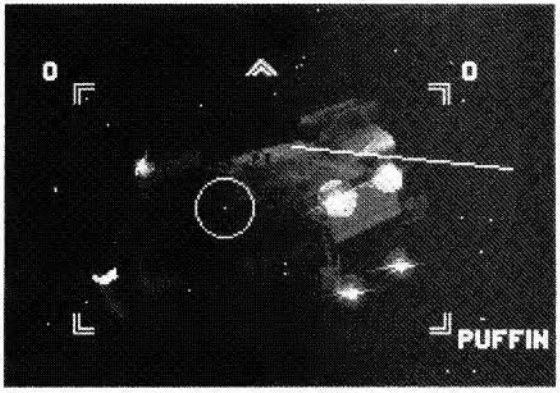
Defensive Tactics

- Watch your six. You are vulnerable from the rear. Turn to keep vessels out of your rear quarter.

- Watch the shielded ship. Each shield subsystem decides which is the most likely enemy to fire upon you and tracks that vessel with the shield. The HUD flags vessels covered by a shield with this mark: If you are attacking a different ship, you might be vulnerable.

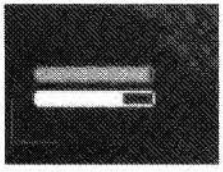


- Use Both Shields. (Splitting the enemies) The corvette ship has two shield projectors: one covering the upper hemisphere, one covering the lower hemisphere. Use this! Rotate the ship so that centerline of the ship splits the enemy vessels. (see diagram)



- Use instant shield. Collisions between vessels are often fatal. Use the buffering effect that Instant Shield provides to minimize the damage of collisions.

- Alternate shields to avoid depletion. Repeated hits on the same shield array in a short space of time causes the shield to deplete. After taking several hits on the upper shield, change the ship's attitude so that the lower shield is taking hits. Look at the shield depletion indicator in the head-up to guide you



Offensive Tactics

There are a number of weaknesses in shield technology that can be exploited when engaging other ships

- Get in his Six. The rear quarter of a vessel is often poorly covered by shields. In the case of a corvette with two shield projectors there is a dead-zone at the rear of the vessel. In the case of Patrol Combatants, there is only one shield projector covering the front/upper hull. Consequently hits from the rear and the underside will get through.

- Two on One. A shield array can only track one hostile vessel at a time. Two simultaneous attacks on a ship will be far more effective than a single ship firing twice as fast. See Wingmen.

- Watch the damage indicators. The separate damage readouts for the Current Contact on the Contacts Registry are very useful. ULD dimmed implies the target has lost Upper LDA shields and will be vulnerable to an attack from the upper hemisphere. LLD dimmed means the same for the Lower LDA. Exploit this!

- Weight of fire - using rapid fire close up can overwhelm a shield even if it is covering you.

Combat Guide: Understanding the use of Cannon

The Particle Beam Cannon provide your most effective combat technology. In typical circumstances most of your kills will be accomplished through cannon.
General cannon tactics are:

- Close the gap. The damage a cannon can do is vastly increased as distance to the target is reduced. Approach enemy vessels with the aim of maintaining a 1-2 KM distance from them. But don't get too close. At all costs avoid approaching too quickly and overshooting. Worse still, avoid colliding with your target!

- Use rapid-fire cannon whenever you can guarantee hitting the target.

- Keep your enemy in your field of fire. Keep the cannon automatically tracking the target and the target within the cannon's field of fire. By keeping it in the field of fire you maximize the number of chances at hitting it. If you see the X marker on the contact box, turn the ship toward the target.

- Attempt to get behind the enemy ship. Most ships have poor rear shield coverage. Get into their lethal cone and use it.

- Watch for impact flashes. If you see a yellow flash, you have done damage. If you see a blue flash, the shields have blocked the shot.

- Finish off damaged ships. Watch when a ship becomes inert; it will probably tumble and it may be venting gas. In this state it is much easier to damage. You should consider switching to rapid-fire cannon at this point to finish it off.

- Consider using the sub-targeting function. You can lock cannon onto specific systems on larger enemy ships. The cannon can be locked onto the following systems.

CRW	Bridge Area
LDA	Shield Array
CPU	Computer
CAPS	Capsule Drive
WEP	Cannon
THR	Thruster array

Combat Guide: Targeting individual systems

In fighting large ships, taking out a specific turret or shield array can be a much more effective strategy than simply blasting away at the ship's superstructure. Watch for the ship venting red-gas, this is a clear sign of a major system failing.
To use sub-targeting you must be within 4km of your intended target. Designate the ship in the normal way to make it your target. Then press the targeting key <<T>> or <<JOY BUTTON 2>> again. Double designating the ship activates the sub-targeting function. A box cursor will then appear over the currently sub-targeted system. To target the next system, press the targeting key again.

Combat Guide: Understanding the use of Missiles

Use missiles to complement the PBC. Your attacks are more deadly if you use the two weapons in concert.

- Use missiles to soften targets. Engaging any undamaged ship at close quarters can be difficult. Use missiles to do some damage before they get close.

- Use the fire and forget capability to disable secondary bogies. You can mop up the damaged ships later.

- If he gets away, let him take a missile with him. If you have a lock on a ship, but the ship gets out of your field of fire, you can let the missile do the job of finding him.

- On taking on a large fleet, use ripple fire mode. Ripple fire launches a missile at a target then re-targets another hostile. If faced with a squadron of four enemy ships, ripple fire mode can be used to easily launch one or two missiles against all of the targets. After doing this, your life will be much easier. (See WEP – Ripple fire mode) Ripple fire is only available on the WEP workstation. Select missiles and switch fire mode to Ripple Mode. (Using the on screen switch or using the fire-mode key <<Key F>>

- The only way to engage a hostile ship in LDS is to force it into thruster flight. This is achieved by deploying the LDSI missile. It will pursue the target and prevent it from using LDS drive. When the bogey drops out of LDS it will not be damaged, but you have a chance of attacking it with conventional weapons.

Combat Guide: Vessel Placement & Maneuver

The easiest of all combat strategies to forget is the role of vessel placement and maneuver during combat. A particularly common mistake in rookie pilots is to concentrate too heavily on using weapons and pay little regard to the placement of their ship.
These are key tactics relating to placement in combat.

- Distance is a defense. Nothing will protect you from an enemy better than a half a million kilometers.

- Inertia in space is a difficult concept to master. Having too high a velocity can be dangerous. Use one of the following solutions to maintain your speed,
  1. Use assisted flight mode with a modest set-speed of around 300 meters per second. Then use the over-ride keys <<A>> and <<Z>> to get you to the speed you want. This provides a nice balance of speed and maneuverability.

  2. Match Velocities with your enemy. Attacking lighter or highly maneuverable ships can pose a problem. The effort of flying the ship to follow them can leave little time to bring weapons to bear. Use the match-velocity Autopilot << F9 >>. Your ship will automatically use thrusters in an attempt to match velocity with the enemy ship. Your ship becomes linked with the enemy vessel. You are now free to turn the ship and attack. Use the <<A>> and <<Z>> keys to adjust the range to the target. A word of warning: You should be careful using this technique in asteroid fields or near large vessels. Your bogey may elect to scrape you off on the nearest large object.

  3. Use Autopilot Formate in WEP. When using the WEP workstation, it is difficult to both fly the ship and use weapons. When using this workstation it makes sense to concentrate on using weapons. By using the Formate Autopilot <<F8>> from the WEP workstation we request the autopilot to place the ship in a good attack position for the current target.

- Keep your enemies in front. Wherever possible keep the hostile ships in front of you. Not only do your shields work better, but also you can see where they are.

- Angular speed is a defense. If you are within a ship's cannon range, you are harder to hit if you keep moving perpendicular to him. Moving directly towards or away from an enemy provides no protection.
- The Reversal Maneuver. If you hold position to attack a ship, other hostiles may gather on your six to attack. If this occurs you can turn the tables on them by performing a full aft burn. Press and hold the key <<key Z>> to move rapidly backwards. With luck this should bring all the enemy ships in front of you.

- Attack large ships by strafing. Attacking a large vessel, you may wish to traverse the length of the vessel, while pointing guns at it. This is a maneuver that requires free-flight mode. (See Nav: Free Flight). In assisted mode, put the ship on the right velocity, moving along the length of the target vessel. Press key <<Key N>> to place the ship in free-flight mode. You can now turn the ship without affecting the velocity. This allows you to fire cannon and missiles into the body of the ship as you pass along it. To restore assisted flight mode, press <<Key N>> again.

- Dodge using Lateral Thrusters. In a similar vein, it is possible to slide the ship sideways to avoid incoming fire. This is done by engaging the lateral thrusters. To do this, press and hold the key <<Key S>>. While it is held down, the yoke will control X and Y-axis translation, allowing the ship to slide left and right or up and down without a change in attitude. (for more information see Nav:Lateral Thrusters)

Combat Guide: General Strategies

- Pick off the weaker ships first. Damaged and weaker vessels with functioning weapons systems can kill you just as easily as any other vessel. Kill them off first.

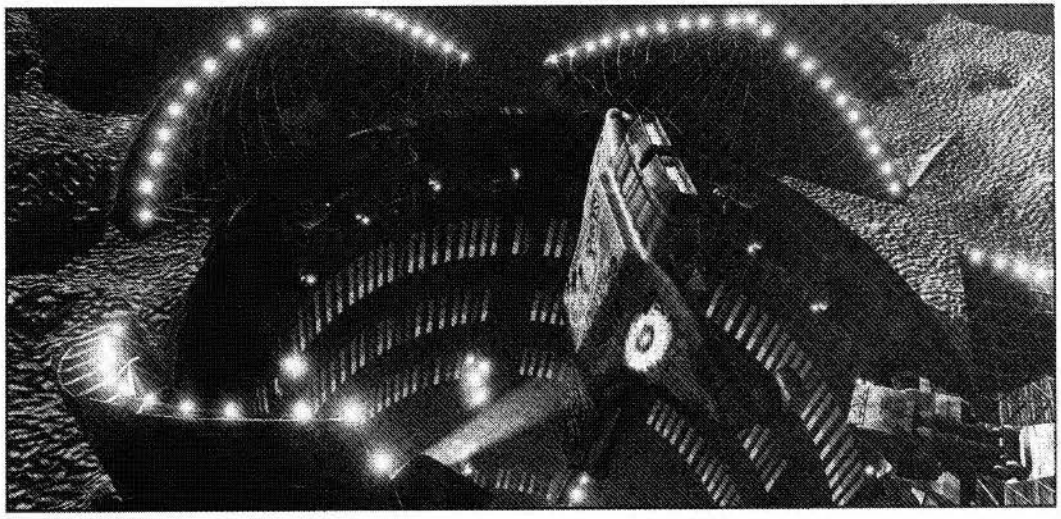
- Once you engage a ship, finish it off. Otherwise they will repair themselves.

- If you have wingmen available, use them.
- If you are vulnerable, keep with the fleet. Your enemies will pick off stragglers first.
- If a situation seems impossible, think hard. Is there some possibility you have overlooked?

Combat Guide: Conclusion

Ship-to-ship combat in space is the very pinnacle of the art of war. It is the purest expression of human combat. The greatest warriors are those who continue to learn; who are never satisfied or complacent. Follow their lead; learn from their lessons. Only then will you be victorious.

Akira Tadeshi 2218



Appendices

Appendix 1: Glossary

Accommodation Module	A unit for the accommodation of the crew. On the Dreadnaught there are two detachable accommodation units on the left and right side of the upper saucer.
AntiMatter	Matter in which each subatomic particle has the opposite charge to normal matter. Placing matter and anti-matter together results in a violent explosion as both substances are annihilated. Consequently a powerful energy source and a potential weapon.
Autopilot	A computer sub-system which automatically guides a vessel. On the Dreadnaught there are 5 autopilot pre-set functions.
Bogey	An enemy vessel. See hostile.
BioBomber	See EAD
Bridge	The area of a ship where the command crew is based.
Briefing	The information presented to a crew, prior to embarking on a mission.
Capsule Drive	The faster than light propulsion system on the Dreadnaught. Allowing the ship to jump from one star system to another.
CMD	The code for the CoMmanD workstation
Command Section Dreadnaught	The detachable sub-vessel which forms the bridge of the
Commonwealth	The dominant political bloc which includes Earth and the Navy.
Contact	Any vessel or object which is detected by a ship. Usage: We have a new contact
Corvette	A vessel classification for mid-sized warships. The Dreadnaught is a corvette.
CPU	Central Processing Unit (the main core of a computer)

Appendix 1: Glossary

Current Contact	The contact which has been selected by the user. See Contact.
Direct X	Microsoft's extension to Windows allowing games to take advantage of the PC hardware.
Displacement	A technology that rearranges space, and thereby moves any item in that space.
Docking Point	The point on a vessel or station which another ship may dock to.
Dreadnaught	The name of the ship featured IN *INDEPENDENCE WAR* and also the class-ship for that type of corvette.
DX5	Direct X 5 - the latest version of Direct X
EAD	Environmental Adjustment Drone. A vast automated space-factory used to transform or terra-form a planet into one that can be habitable.
ECM Flare	Acronym – Electronic Counter Measures. A spoofing device which misleads incoming missiles into colliding with the flare instead of its intended target.
ENG	The code for the ENGineering workstation
Force-Feedback	A joystick technology which uses motors to dynamically change vibration and make variations in resistance in the joy stick while a game, is being played.
Formate	To enter into a formation with another vessel.
FTL	Acronym - Faster Than Light. In *INDEPENDENCE WAR* this usually refers to a method of low-bandwidth communication in which messages are transmitted instantly between FTL relays.
GSV	Acronym - Global Space View. The star chart display
GunStar	An automated armed platform. Often used in a defensive role.

Hatch	Another name for UDC. The ship in *INDEPENDENCE WAR* has a top hatch and a bottom hatch.
HeadUp Display	A display technology which superimposes a computer-generated display on top of the pilot's field of view.
Hostile	An enemy spacecraft
HQ	Acronym - Head Quarters
HUD	Acronym - Head Up Display
Independence Movement	The political movement, seeking to achieve autonomy for colony worlds.
Indies	Slang Term for those in the Independence movement.
Injector	The component which sends particles into the reactor.
Jump Point	Alternative term for a LaGrange point.
Known Space	All of space mapped and explored by mankind.
LaGrange Point	A point of gravitation neutrality between two masses in space. For instance there are a number of LaGrange points between the Earth and the Moon. Of these points number 4 and 5 (L4 & L5) are the best suited for Capsule space jumps.
LDS	Acronym - Linear Displacement drive System. A method of shifting a spacecraft through space at high speeds, (up to 1/3 the speed of light). A vessel using this propulsion system is said to be "in LDS."
LDSI	Acronym - LDS Interrupter. A type of missile which prevents another ship from using LDS. This missile is usually used to prevent another vessel escaping. LDSI missiles have a characteristic blue engine flare.
LST	Acronym - Landing Ship/Tank. A spacecraft capable of landing on a planet like an aircraft.

Appendix 1: Glossary

Magazines	The structures on a ship which hold missiles, mines and torpedoes.
Mini Service Drone	A small robotic space craft that can be launched like a missile.
MS-1	Mathematical form meaning meters per second.
MSD	Acronym - Mini Service Drone. See Mini Service Drone.
NAV	The code for the NAVigation workstation
Neutronium	An ultra-dense material formed by the collapse of stars. Neutronium is a substance in which the empty space between the atom and its electron shell has collapsed. The substance is entirely made from neutrons from the atomic nucleus. Most valuable.
Objectives	The specific goals of a mission.
Orb	A display device which serves as a 3D radar.
Pastie	Slang Term for the sort of Accommodation Module found on Dreadnaught class vessels.
PatCom	Short for Patrol Combatant. A small warship - or gunboat.
PBC	(Acronym) Particle Beam Cannon. The main offensive weapon on the Dreadnaught
Pitch	The rotation of a ship around its x-axis. Pitching a ship will make its nose go up or down. Pushing forward or back on the stick produces a pitch.
Probe	A missile-type device designed to gather information rather than deliver a warhead.
Recon Probe	Short for Reconnaissance Probe.
REM	Short for REMote subsystem. A mechanism to control other vessels from a distance.

Ring	Slang for the collider ring. The main energy producing structure on the ship.
Roll	Turning the ship around its z-axis. Also known as bank. Normally moving the stick left or right will produce a bank.
Saltlake	The Commonwealth Navy space station at L5
SecPat	Short for Security Patrol.
Set-Speed	The forward (z-axis) velocity of a ship as set by the pilot.
Side-Slip	The sideways (non z-axis) motion of a ship.
Six	Directly behind your vessel. From the location on a clock of the number six. Usage "Watch your six"
STC	Acronym - Space Traffic Control
Target	Specifically the contact which has been designated.
Thermal	Another term for a contact. In space most vessels are detected by their thermal emissions.
Thruster	A device on a space ship. A vent for gas or plasma which can allow the vessel to turn or accelerate.
UDC	Acronym - Universal Docking Collar.
UIV	Acronym – UnIdentified Vessel (Like UFO)
Universal Docking Collar	A device on a space ship which allows it to dock with another vessel forming an airtight seal and a strong mechanical linkage. Crew and cargo then pass through the collar. Also known as a hatch.
Waste Heat Array	The structure on the rear of a star-ship designed to radiate unwanted heat into space.
Waypoint	A specific three-dimensional location in space. Normally held in the Ship's computer.

WEP	The code for the gunner's WEaPonry workstation
WingMan	A secondary vessel and crew assigned to the first vessel to assist.
X-axis	The axis running through the ship from left wingtip to right wingtip
Yaw	Turning the ship around its vertical axis. A car yaws as it turns a corner. Normally a yaw is achieved by using the rudder control.
Y-axis	The axis running through the ship from the bottom hatch to the top hatch
Z-axis	The axis running through the ship from the main engines to the nose.

APPENDIX 2:Game Credits

Glyn Williams
Game Design, Art Direction, Script Writing, Manual, Art and Briefing Animator

Michael Powell
Game Design, Technical Direction, Lead Programming and Project Management.

Richard Aidley
Programming and Artificial Intelligence, Mission Implementation

Matt Clark
Modeling, real-time Modeling, Graphic Design and Program Testing

Michael Todd
Production Design, Animator, Modeling Movie Editing and Storyboard Artist

Andy Turner
Animator, Graphic Design, Sound Editor and Movie Editing

Stephen Robertson
Program Testing, Support, and Mission Tuning

Dave Hawkins
Producer

Stefan Trofan
Briefing Animator

Martyn Bramall
Asset Integration & Testing

Jacqui Lyons & Marjacq
Project Representation

Jim Belcher
Infogrames U.S. Product Manager

David Riley
Infogrames U.S. Marketing Manager

Sound
Music Composition & In Game sound effects
Kevin Saville
Dialogue recording done at the Flying Dutchman Company
(Engineer Giles Littlefield)

Actors
Corey Johnson
Stanley Townsend
David Jarvis
Aaron Shwartz
Alletta Lawson
Annie Tomkinson Jarvis
Billy J Mitchell

Infogrames QA
Lyon, France
QA Leader:
Oliver Robin
Coordination:
Philippe Louvet
Testers:
Olivier Jamin
Christian Ampere
Pascal Lafond
Gerard Bareille
Philippe Lacharpagne

Infogrames U.K. QA
Manchester, England
Team Leader:
Paul Johnson
Hardware Testing:
Simon Crawford
Testers:
Lee Fallon
Andrew Shaw

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