COUNTRY

USA Germany Britain Russia Italy Spain Japan France

Neutral

The flags available for each side.

The

GRANDEST

FLEET

Quick Reference

SHIP INFORMATION

No Moves Left
Movement is done for this turn

Go to Enabled
Ship has continuing movement orders next turn

Repairing
Within repair range of city or Super transport

Submerged
Submarine is submerged

Ship Anchored
Ships is anchored and will be ignored

Ship stopped
Ship has movement but has been stopped

Carrier Replenishing
Carrier is within replenish aircraft range

Moves Left
Ship has movement

CITY INFORMATION

Missile Base - Fires a cruise missile each turn.

Harbor Siege point for any city

EWS - Sees out 5 from any city.

Minefield - Almost impassable area.
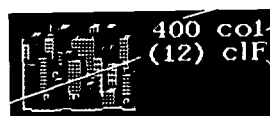
Country Flag

Dock-Allows you to produce ships

Airport - supports bombers

Supership Dock-allows you to produce super ships

Flightdeck

CITY INFORMATION

Victory Points

Country

400 col
(12) clF

Size

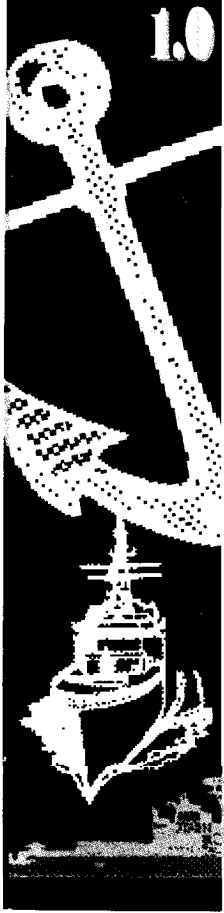**Class**

1.0 Installation

⚓ Startup

To start playing the Grandest Fleet, after the game is loaded just follow these instructions.

1. Set the directory to where the game is installed
Example: "CD\GFLEET\"<enter>

2. If You haven't installed sound options Yet; Type "setup"<enter> this will bring you two menus, the first menu is for digitized sound and the second menu is for music. Select the proper sound card (or IBM speaker if none present) using the up and down arrows and then pressing <enter>. The menus will then play a test sound if it plays properly answer 'Yes' and continue.

3. Type "gfleet"<enter> to start the game. You have now completed the startup procedure and are ready to begin playing the Grandest Fleet.

⚓ Trouble Shooting

The Grandest Fleet requires 575,000 bytes of conventional memory and 3 megs of expanded memory to play. This can cause problems for those who load TSR's (Terminate, Stay Resident) programs. Some excellent examples of TSR's are screen savers, virus checkers, pop up calendars...etc. They may need to be disabled in order to run this game. If You do not want to disable them, or Your machine absolutely needs them, You can make what is commonly known as a boot disk.

Making a Boot Disk

To make a boot disk is quite simple. Here are the steps needed to make such a disk:
Put a blank unformatted diskette mto your A: drive.

2. Type "FORMAT A:/S" <enter>
(once the disk is formatted, we will need to put an AUTOEXEC.BAT and CONFIGSYS on it)

3. Type "COPY CON CONFIGSYS" <enter>
"OEVICE = C:\DOS\HIMEM.SYS" center>
"DEVICE = C:\DOS\EMM386.EXE RAM 2048" <enter>
"DOS = HIGH,UMB"<enter>
press the F6 key and <enter>

Your CONFIGSYS may have to be slightly different if You are using Doublespace, Stacker, or any other disk compression utility. You may also have to alter the location of the HIMEM.SYS or EMM386.EXE.

4. Type "COPY CON AUTOEXECBAT" <enter>
"C:\(mouse path)\MOUSE" <enter>
press the F6 key and <enter>

You have now made a boot disk. Put the boot disk in Drive A: and restart Your computer, Once this is completed type the following:
"C:" <enter>
"CD\GFLEET" <enter>
"GFLEET" <enter>

If You are still having problems with the execution of the Grandest Fleet please call our technical support specialists at (908) 788-2799 between 9AM and 5:00PM Eastern Standard Time. When You call, it will save time if You have the following information handy:

1. The contents of Your CONFIG.SYS and AUTOEXECBAT files,
2. What type of machine You have, and the version of DOS You are using.
3. What type, if any, sound board You have.

This information will help us to help You to the best of our abilities.
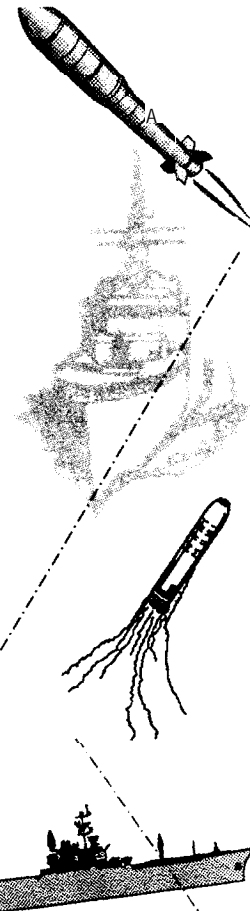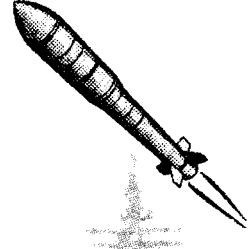
⚓ Tutorial

This tutorial will allow you to jump right into a game and understand the basics of The Grandest Fleet. For complete information on every feature and function, read the full rules after playing Your first few games. For both the tutorial and the full rules You should run the actual game through the screens to better visualize the rule descriptions.

This is the order of events in this tutorial:

1. Create an officer
2. Choose either battle or campaign
3. Choose a map
4. Choose game options
5. Choose starting city
6. Buy and place starting units
7. Computer chooses starting city and places units
8. Players movement
9. Players production
10. Combat
11. Computer movement and production
12. Combat

Throughout the manual certain letters will be surrounded by ◇. This will denote a "hotkey". BY depressing the hotkey on the appropriate screen, it will activate the noted option. For example <O>fficer would bring You to the Officer menu when You click on the officer button. By depressing the 0 button, the same would be accomplished.

⚓ Creating an Officer

Before starting the battle You must create an officer. First, click the mouse button on View <O>fficers. Then, on the Officer Menu screen, click on <C>reate Officer. Now, type in your name and press Enter. 00 not use spaces, or any form of punctuation in the name of Your officer. A new chart will appear with your officer's name and his current ranking highlighted. Click on e<X>it.
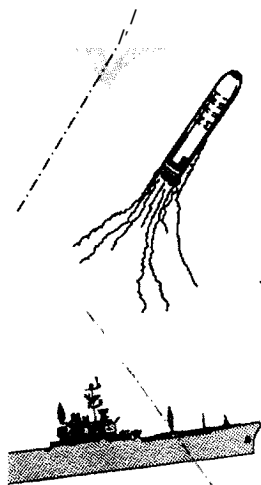
⚓ Choosing A Map

You will now be back at the Opening Screen. When first playing Grandest Fleet, it is best to fight single battles so that you can learn the basics of the game. Click on Fight Battle.

At the MAP MENU SCREEN, You will see a list of several possible maps to choose from. Your battle will be taking place in the Falkland Islands, which is a relatively simple map. Click the mouse button on the line marked. Before choosing the map, You may view the overall map of that scenario by clicking on the <V>iew button on the bottom of the screen.

Falkland then click on <U>se this map

⚓ Choosing Game Options

This screen allows you to choose which players will battle, flags for each player, and each player's namesake. It also is responsible for choosing the rules for this battle. You must confirm the Al level, Click on the confirm button to continue, Once again, to keep it simple, use the following settings, then click on Start:

A, Side 1 -Your officer's name
B. Side 2 · Computer Opponent
C. Side 1 · Flag · choose Your own
D. Side 2 · Flag · choose the computer's
E. Side 1 · Namesake · Name Your country
F. Side 2 · Namesake · BAD
G. Build points per side · 75
H. Game lasts 12 turns
I. Choose 1 of 2 cities to start
J. NO special starts
K. Random Damage rules NOT used
L. SIMPLE Super ship rules
M. Al level 1 worth up to 1 notches
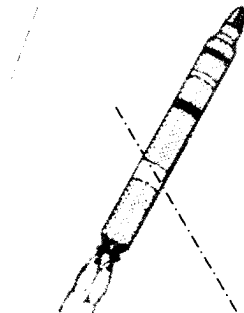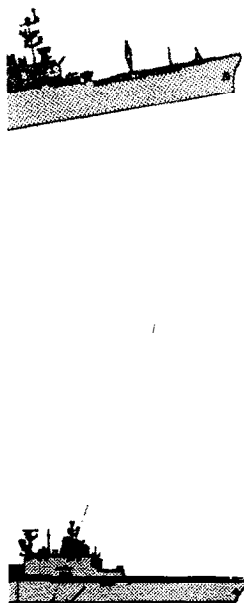
⚓ Choosing a Starting City

This screen has four sections; the message bar at the top, the map section in the middle, the list of cities at the bottom left, and the full view map in the lower right.

The message bar will appear throughout the game with various instructions or information. At this point, it states how many cities You have chosen of those available to you. BY clicking on <C>ities You can toggle through Your choices.

The list of cities are those available to you at the beginning of the game. Each city will list its country number, name, victory point value, size, class, and any special properties. For example:

> co5: Goose Green 200VP (1) clF Shipyard Airport

Clicking on either city's line will choose that as Your starting location, a second click will deselect the city. You can also choose cities by clicking on the hexagon associated with that city.

The full view map in the lower right is a picture of the complete map area. The clues You can choose from are highlighted by a flashing hexagon. If you have clicked on a city, it will be changed to a flashing orange hexagon. BY clicking the left mouse button on any portion of this map, you can direct that area to the main screen. By using the right mouse button, You can enlarge the full view map. To return, press either button on the mouse.

The main screen shows You a section of the complete map containing the city that is currently highlighted and its surrounding area. You can scroll around the whole map in any direction by moving the cursor to any side of the screen.

Take a few minutes to scroll around and take a good look at the map, then choose one of the two cities, There are two things to consider when choosing Your city, whether it has a shipyard or an airport, which will allow You to produce either new ships or bombers each turn, and its proximity to the possible starting location of the enemy and other cities. When you have made your selection, click on <D>one.

⚓ Choosing Starting Forces

It is now time to select Your forces.

You will see in the lower left, a selection of various units. Each square contains a picture of the unit, its name, how many You own, and its initial cost. Each unit has its own strengths and abilities. Click twice on the square with the Carrier in it. On the main screen will appear information about the carrier and its aircraft.

At the top of the diagram is a damage ratio. The top row shows how many points of damage the carrier itself will inflict on the various units above each number. The second row shows the planes' damage ratio. Numbers in green represent less than half of the targets maximum damage points, numbers in blue are half or more, numbers in red are complete destruction, and gray always means zero damage. For example, a carrier will cause 3 damage points against another carrier in combat. A carrier aircraft will cause 4 damage points against a carrier in combat. Below the Damage Ratio Chart is a list of information about the unit in the following order.

Name of the unit - Carrier

Maximum Damage Points - 10.
How strong the unit is and the amount of damage it will sustain.

Movement - 4.
How many hexes per turn this unit can move.

Attack Range - 0.
How near a unit has to be to an enemy unit in order to inflict damage upon it. For an attack range of zero, it must occupy the same hex as its target.
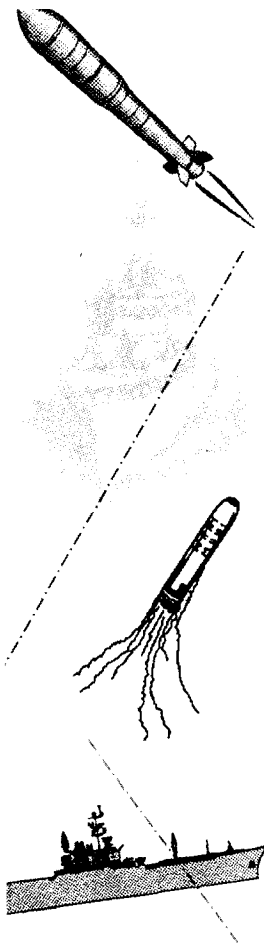
Anti Air Range - 1.
How many hexes away Air defences will be used.

Bombard - 0.
How much damage a unit can inflict upon a city per turn.(Can use its planes to bombard the city)

invasion · 3.
Size of a city a ship can successfully invade and capture.

Initial Cost · 31.
How much a unit costs at the beginning of the game.

Sees Out · 5.
How far away a unit can see enemy units.

Max. Air Strength · 7.
Total amount of planes that can be carried on this ship.

Attacks · 2 if the aircraft strength is 4+.
If the number of aircraft on the carrier are greater than 4, then the carrier gets 2 attacks.

Range · 5
How far the planes can fly from the carriers' position.

The message bar, at the top of the screen, will indicate how much you have for spending on initial deployment. To purchase any of the units, click on it once then move the cursor into any area of the main screen that is highlighted. To deploy the unit, click with the left mouse button on that hex. To erase a unit from the map either click on it with the right mouse button or place a new unit on top of it. For this tutorial select and deploy the following ships:

    1 Battleship
    1 CVL (Light Carrier)
    1 Destroyer
    2 A.T. (Attack Transport)

Then click on <D>one to continue with the game.

<div align="center">12</div>
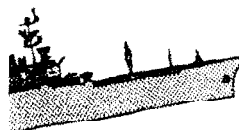
Movement

In the lower left corner of this screen is the name of the current active unit, a picture of it, its strength, its remaining movement, and your total victory points. The status of a ship is displayed in the lower left box for Player 1 and the right box for Player 2.

On the main screen, one of the ships you have chosen will have a flashing box placed on it. This ship will be the first to be moved. To move a ship, click the left mouse button on the hex that you want to move to. The ship will move to that hex. If the location is out of that ship's movement range, it will automatically be moved towards it on the next movement turn. The computer will cycle through all of your units until each has been moved. If you wish to move a different ship from the one the computer has chosen, just click the right mouse button on your desired unit. This will not skip the other ship's turn, you may return to them later.

To stop a ship before its full movement, click on the upper left button of 9 block button panel, or keypress the letter 'S'. The other buttons will be explained later in the full rules.

First, move one of your A.T.'s towards the nearest city that was not one of the computer's players starting location options, This A.T. is going to invade and capture that city. Next, move the rest of your ships towards a city that was one of the computer's options. This fleet is going to be looking for combat,

Production

The first screen of the production phase is the COMMUNITY ASSETS MENU. This screen allows you to produce improvements for your cities. This will not be needed due to the simplicities of this tutorial but is a very important part of a standard game. Click on <D>one to move to the next screen.

The second screen is the BUILD MENU screen and will allow you to either enlarge your cities, or produce new forces (if you have a shipyard or airport). The top section of the screen deals exclusively with the growth, and bribing of cities and, as above, is not necessary for the play of this tutorial. The lower section is a listing of the units available for purchase. To buy a ship, first check your assets to make sure you can afford it. The amount's are located in the upper right corner of the screen and are in three units, T for Technologies, R for Resources, and A for Atomics(needed   only in the advanced game). The defmitions of these are found later in the full rules. To buy units, click the left mouse button once for each unit you want on that unit. Click on <D>one to move to the next phase.
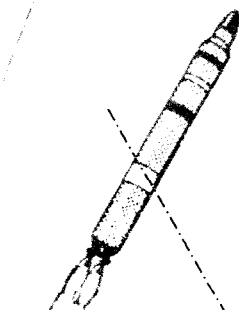
<div align="center">13</div>

⚓ Combat

The main goal of the Grandest Fleet is to acquire as many cities as possible, while preventing Your opponent from doing the same. Combat is where the battle for control of the cities transpires.

Combat *consists of three phases:*

Melee and Secondary Shots

This is combat between enemy units occupying the same hex and is always resolved first. The damage that can be inflicted is displayed on top of the enemy unit followed by that unit's remaining strength. For example, (3/3) means that You will inflict 3 points of damage on that particular unit while it has only 3 damage points left Therefore, this attack would result in a complete destruction of that unit. To attack, click the left mouse button on the intended target. Once the combat is resolved, an immediate counter-attack is made by the defender. Except for secondary shots a unit may only attack one other enemy unit or city per combat phase.

Ranged Combat

Ranged combat occurs next with all attacking units followed by the defendmg units. A white/red box will surround the attacking unit, All the targets in range are displayed with the possible damage and the remainmg defense points needed for a kill, and as a Yellow mark in the full view map. Choose the target by clicking the left mouse button on it. Defending range units get to fire even if they are killed during the attacker's ranged combat.

Bombardment

Bombardment is an attack on a city by a ship or aircraft. Cities in bombardment range of a ship or airfield will show the damage/city size ratio. Click the left mouse button on a city to select it as a target. Bombarding is done mainly to lower the city's defense for invasion.

Sieges and Invasions

BY maneuvering a ship into the port of an enemy or neutral city You are causing that city to become sieged. If the sieging ship's invasion strength is equal to or greater than the city's current size the city will be invaded on that turn. If not, the city will be sieged causing one point of damage to that city per turn, as long as any ship remains in its port.

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TEAT'S IT!

At this point the computer will make it's movement and play the role of attacker in the next combat phase and then it is Your movement again. This cycle will continue until either one side has captured all the cities and destroyed all its opponent's forces or you have gone through twelve turns. Congratulations if You were the victor and condolences if You were defeated.

Summary of The Grandest Fleet terms

Cities:
- Opera · Generates 5 culture points per turn.(VP +700 per turn)
- Hospital · Repairs damaged cities 3 per turn(VP +400 per turn)
- University · Generates 5 culture points per turn. Needed to make some other assets(EWS-1,Repair Yards-5,Missile Base-5).(VP -200 per turn)
- Downtown · Increases city size by 5.(VP +400 per turn)
- Flightdeck Repairs air power of Carriers within 6 hexes, Combines with nearby airports
- EWS · Lets cities see out 5 spaces(sights submerged subs)
- Repair Yard · Triples repair rate for ships near city if enemy ships not in same hex.
- Missile Base · Shoots cruise missiles. Can build 3 in each city.
- Shipyard · Allows shipbuilding(takes 5 turns to build).
- Airport-Allows airplanes(takes 5 turns to build).
- Convoy · Increases city class by 1. City also grows city over time. Takes 2 turns to build.

Building Super Ships
- Training · Needed to build Super Carriers.
- Assembly · Needed to build Super Battleships.
- Reactor · Needed to build Super Subs.
- Mill · Needed to build Super Destroyers.
- Refinery · Needed to build Super Transports.

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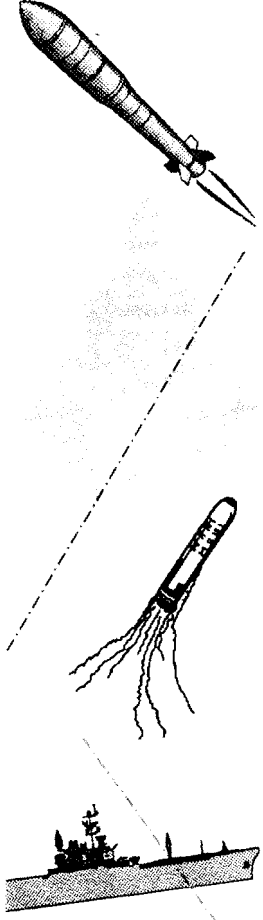
Superships:

Super Carriers Gets three attacks with its planes. Also can see out 8 hexes

Super Battleships · Carries a cruise missile, thus getting an extra attack every turn.

Super Subs · Neutralizes an enemy town's victory points

Super Destroyers · Can see a submarine up to 1 hex away. The Super Destroyer moves 7 hexes.

Super Transports · Allows you to invade up to cities up to 70 in size. It will repair itself and nearby ships slowly

City Size/Effects Chart

A convoy will increase CLASS by 1.

Owning all cities in a country will increase all those city's CLASS by 1

size 0- 9 = 1 Anti Air strength.

size 10-20 = 2 Anti Air strength.

size 21+ = 3 Anti Air strength.

Reaching size 25t will increase CLASS by 1.

Reaching size 50+ will increase CLASS by 1 more.

Reaching size 60+ will increase VP value by 200.

Reaching size 100+ will increase VP value by 500 more.

To see a city Information screen click the right mouse button on a city square, this will bring up a full screen visage of your city and gives a plethora of information about the city.

16
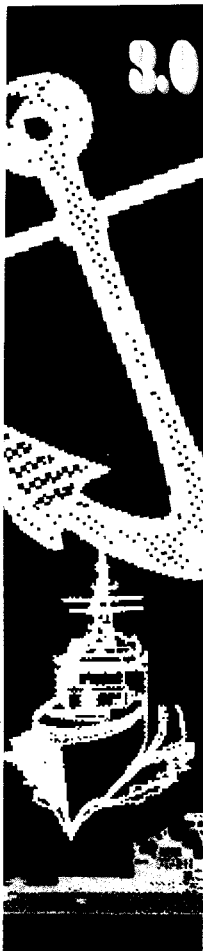
8.0 Grandest Fleet Rules

Throughout the game an item can be selected by using the left mouse button, or through keyboard commands by typing the bracketed letter of a command, such as <L>ist. The left mouse button is normally used to select items while the right mouse button is used for other required functions such as; selecting different units, and getting unit information.

The main screen has the following options and functions:

1. View <O>fficers

Officers gain two types of ranks Naval, and Political. The naval rank is listed first and are as follows:

RANK

Warrant Officer

Chief Warrant Officer

Ensign

Lieutenant

Commander

Captain

Admiral

Fleet Admiral

"NOTCHES NECESSARY' are the amount of notches needed to advance in each individual rank. Notches are earned by winning battles with more notches being gained by beating better players. Once you increase in rank you will need to gain the full notches to gain the next rank. For example as a Warrant Officer you will need to gain notches to advance to Ensign. As you advance in rank you will receive a more powerful Flagship to go with your new rank.

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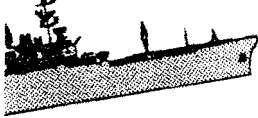
The second type of rank is political and they are as followed:

    R A N K
Citizen
Council Seat
Assemblyman
Chairperson
Mayor
Governor

"POINTS NECESSARY" are gained by completing a complete cycle through the naval ranks. Once You make Fleet Admiral Your next step will be Warrant Officer and Your political rank will increase to Council Seat, The buttons available on this screen and their purpose are as follows:

a. <C>reate Officer

when You select this menu item an information box will appear asking for the name of the officer you wish to create. Enter Your name and hit <enter>. You are now an Officer in good standing.

b. <D>elete Officer

Select the Officer You wish to delete. Now select this menu item. That Officer has now been removed. Bye-Bye. Any saved games that were using this name will not be loadable.

c. Scroll <L>ist

Select this menu item to scroll through all the available officers.

d. High &core

Selecting this menu item will take You to the high score screens. The first screen You come to will have you select the map You wish to get high scores from. You will then need to select <S>ee Screen to proceed, Scrol<L> to see more maps or <A>bort to return to Officers' menu. If You proceed, the next high score screen will bring information boxes for different combinations of human vs human and human vs different AI computer players showing the highest scores for that particular map. On this screen You can toggle between Show &core and Show <D>ate,
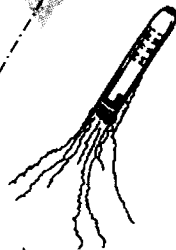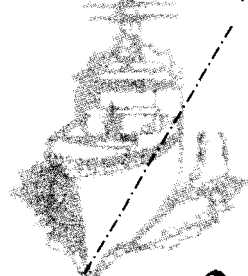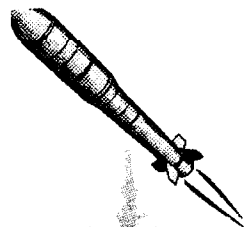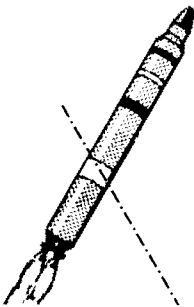
Scrol<L> for more scores. Select <C>ontinue to proceed to the next high score screen, This screen will show the win/loss average and high score for each individual officer vs the computer and humans, You can <R>eset scores here or <C>ontinue to return to the Officers' menu.

e. e<X>it

Selecting this menu item will return You to the main menu.

f. VP per <T>urn - <T>otal VP

Sits next to each individual Officer. Selecting this button will toggle all officer's between victory point per turn or Total VP.

g. <H>istory

Sits next to each individual officer. Selecting this button will cycle You between the different maps all officers have played on and update the VP information.

2. Fight <B>attle

This is where all the action happens.

a. Battle maps

This will be the first screen You come to after selecting Fight <B>attle. Choose the map You wish to play. Once highlighted, You will see a brief description of this map underneath. Select <U>se this map to play the chosen map. Selecting Scrol<L> will scroll you through the available map screens. Choose <A>bort to return to main menu. Click on <V>iew and a full map of the area of play will be shown, this item will not work for random maps (see Random Map).

If You choose random map You will be brought to the random map screen. In this screen You can setup the size of the map, how much land, number of islands, number of cities, and the shape of the islands. If You wish You can select <R>andomize

which will randomly select the previous factors. When ready, select <D>one to load map and continue into the game (see Battlemap).

Random Map

Random Map Choices:

Ramdomize Option

Continue

Abort Game

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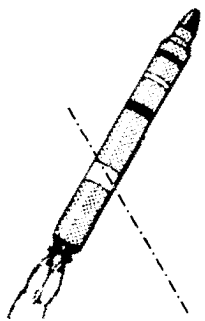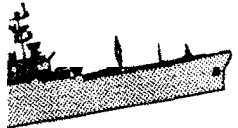
b. New Game Options

This is where you will set up the battle you are about to play.

    A. Side 1:
    B. Side 2:
    C. Side 1 Flag:
    D. Side 2 Flag:
    E. Side 1 Namesake:
    F. Side 2 Namesake:
    G. Build points per side
    H. End of game
    I. Initial cities
    J. Special starts
    K. Random damage rules
    L. Super ship rules
    M. AI level

(see Options)

SIDE 1 AND SIDE 2 will toggle between all the officers and the computer player. Select these items until you get the player setup you desire.

SIDE 1 FLAG AND SIDE 2 FLAG. Select these items to choose between nine available flags for each side.

SIDE 1 NAMESAKE AND SIDE 2 NAMESAKE. Select this to change the name of your country.

GUILD POINTS PER SIDE will toggle between 75,200 and 375 Build points will allow you to buy your first set of ships at the start of the battle. In games with Human vs Human or Human vs AI (level 1 or 2). both sides will start with the same build points.

END OF GAME options will allow you to determine the end of game criteria. You can decide between Turns, 2/3 Cities, or Annihilation. The number of turns can be either 12,20 or 32. 2/3 cities is based on capturing 2/3 of the cities on the map. Once this is done by either side the battle will be done. Annihilation is pretty obvious. You have to wipe out your opponent completely. The winner of the game is the one with the most victory points. You should be careful, it is possible to "win" the game by Cities or Annihilation and still lose because your opponent has built up

Battlemap

Map Description   Available Maps   Random Map

BATTLE MAPS
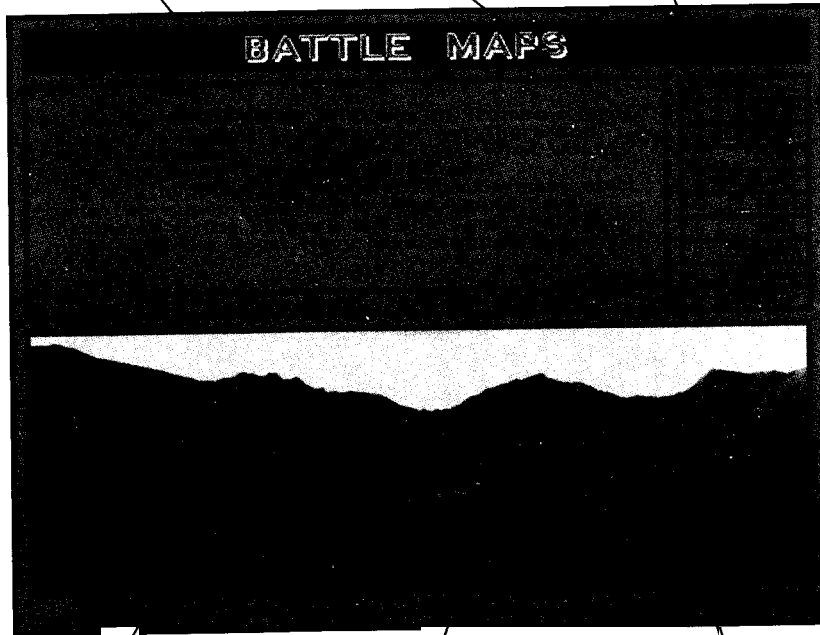
Go Back To
Main Menu

View Map of
Scenario

Continue

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Options

Real Name   Flag   Nickname
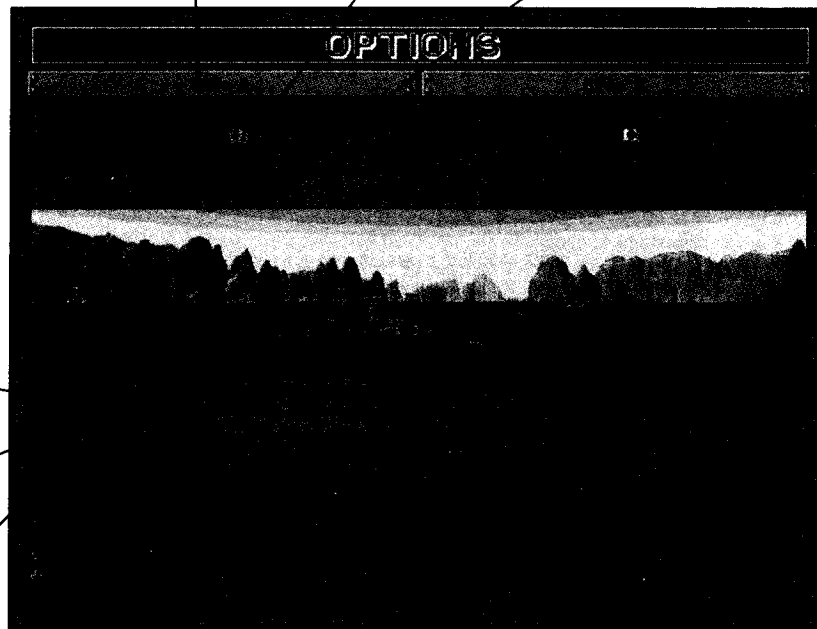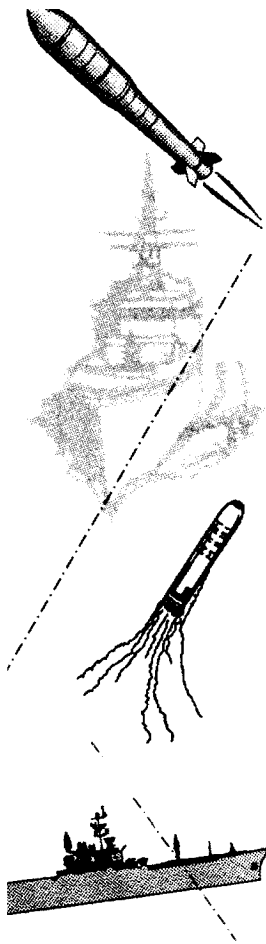
OPTIONS

Build Points

Game Length

Starting Locations

Special Start
Toggle

Random
Damage
Toggle

SuperShip
Rules Basic/Advanced

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a lead in victory points. So, you might want to wait until your victory points surpass his before finishing the game.

INITIAL CITIES will toggle between how many cities are chosen at the start of the game; 1 of 2,2 of 4,3 of 6, or 4 of 8.

SPECIAL STARTS will cycle between all the special starts available for the map chosen. Battle maps may have several special starts associated with it such as special ships, already picked cities, preplaced ships, etc.

RANDOM DAMAGE RULES will allow you to select between standard damage and random damage. Random damage will add a bit of unpredictability to the damage created by hits on ships. The following are the effects of random damage rules. For large ships (Battleships and Cruisers) the damage created by these ships will be +/-2 points, with a 10% chance of an outright kill. For smaller ships the damage will be t/-l and no chance of an outright kill. With the Super Ships the outright kill chance is increased to 20%. All Super ships will decrease the outright kill chance in half.

SUPER SHIP RULES. Selecting this item will switch you between Simple Super Ships and Advanced Super Ships. Simple ship rules make it much easier to build and buy Super Ships, With simple rules you can start building Super Ships after building only one of the city items needed for that ship. Simple Super Ships also don't require atomics to build, just technologies and resources. Advanced Super Ships require you to build three city items for the type of ship and require technologies, resources and atomics to build. Super Ships have much greater capabilities compared to their counterparts, so it's a matter of taste if you wish these bad boys to come into the game quickly and easily.

AI LEVEL. This is where you select how challenging the Artificial opponent will be. You will be up late at night biting your fingernails, finding a way to beat the 21 levels of computer intelligence. Level 21 will start the computer with the most forces. The greater the level the more notches you can gain or lose for advancement purposes. Once you have chosen the new game options you want, just select &tart to begin the battle. If you wish to return to the main menu you can select Abor<T>.

c. Choosing cities
Congratulations!   You have now reached actual game play. The first thing you will be required to do is choose cities. At the top of this screen you will notice an information bar, this will inform you of the number of cities you have chosen, The main part of this screen is filled with a scrollable map of the playing area. At the bottom of the
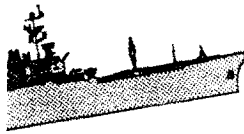
screen is a list of the cities you may choose from, and in the bottom right corner is a full view of the map. To scroll the main map move your mouse pointer to the edge of the monitor in the direction you wish to scroll. You can also go directly to a section on the map by choosing that area on the full view map with your mouse. You may notice that some cities have airfields and/or shipyards. Airfields will allow you to buy and use planes from that city. They will also allow you to resupply planes to carrier ships in the area. Shipyards are the only places where you can bring in new ships during the game.

The cities that can be chosen by both sides will be surrounded by a shaded hexagon on both the scrollable and full view maps. Side 1 cities will be designated by a white hexagon and side 2 cities will be designated by a yellow hexagon. To pick a city you can select it on the scrollable map using the mouse or select from the city list at the bottom of the screen. Once a city is selected the hexagon will change to an orange color and the name on the city list will turn red to inform you of your selection. To deselect the city, just choose it again on the city list. The hexagon and text color will change back in response to your command.

If you select the <C>ities menu item it will cycle through each city available to you one at a time. Once you have completed choosing cities and are ready to move on, select the <D>one menu item.

d. Initial buying screen
This screen is setup very similar to the choosing city screen with the city list replaced by a list of pieces available for your purchase. Side 1's pieces will be colored gray and face to the right and Side 2's pieces will be colored tan and face to the left. This allows for easy identification of players pieces during the play of the game. To buy a piece you first need to select the piece you wish to buy, once done you will notice that it is surrounded by a red rectangle indicating that it is ready for purchase and placement. Ships can be placed in the highlighted surrounding water of any of your selected cities. To do this just select the highlighted hexagon where you wish to place this ship. Once done you will notice a shiny new ship floating in the water and the purchase points deducted from the top information bar. Bombers can only be purchased at airfields. To purchase one, highlight the bomber so that it's surrounded by the red rectangle. Now select the airfield in one of your chosen cities and a bomber appears on the airfield waiting for action. Forts are the last type of piece, they will give your cities the firepower to attack enemy shipping. To buy one highlight the fort and select the land hex you wish to place it in. You are limited to four forts per city, Repeat the above actions until all purchase points are used, then select

 <D>one.

e. Fighting the battle

Hold on there Admiral! You still have a few things you should know before you actually lead Your ships into combat. Your orders and commands are given in three screens: the MOVEMENT MENU, the COMMUNITY ASSETS MENU, and the BUILD MENU. These screens will be described in turn.

1. MOVEMENT SCREEN

This screen is centered by a large scrollable map. The bottom part of the screen is divided into five boxes. Starting from left to right the first box shows information on the Side I's active pieces and its corresponding victory points. The second box is loaded with a detailed drawing of the active piece. The third box is the same as box one but for Side 2. The fourth box contains all the buttons necessary to give Your ships and planes orders, The fifth box contains the full view map. The button box is composed of two sets of buttons toggled from the middle button. On the first set of buttons starting from left to right, and from top to bottom, are described as follows:

Screen Shots of Bottom (see Click Icons)

a. Stop Ship button, will stop the ship for this movement phase only, and cycle to the next piece.
   Keyboard command is ⟨S⟩.

b. Anchor button, will anchor that piece so that it is ignored during the cycling of the pieces, Once this button is depressed the only way to access that piece is to select it manually and raise anchor.
   Keyboard command is ⟨A⟩.

c. Surface/Submerge button, only applicable to submarines, it will bring the sub to the surface or submerge it, giving the sub characteristics for that condition,,
   Keyboard command is ⟨U⟩.

d. Piece information button, will bring up an information box for that particular piece showing its characteristics, firing range, hitting strength against other pieces, and its current status.

e. Button box toggle, will toggle between the two button boxes.

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Click Icons

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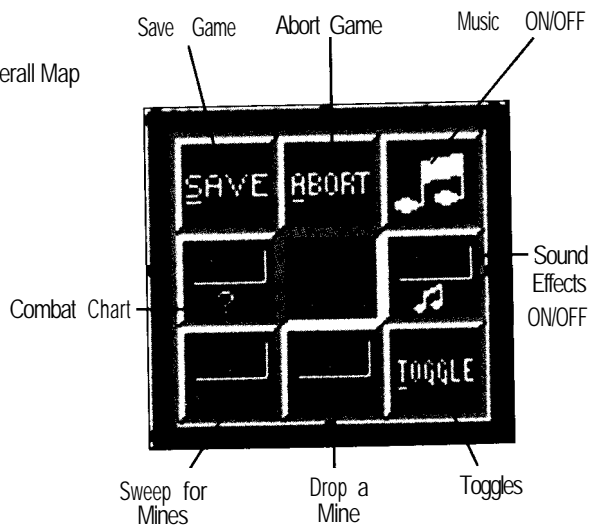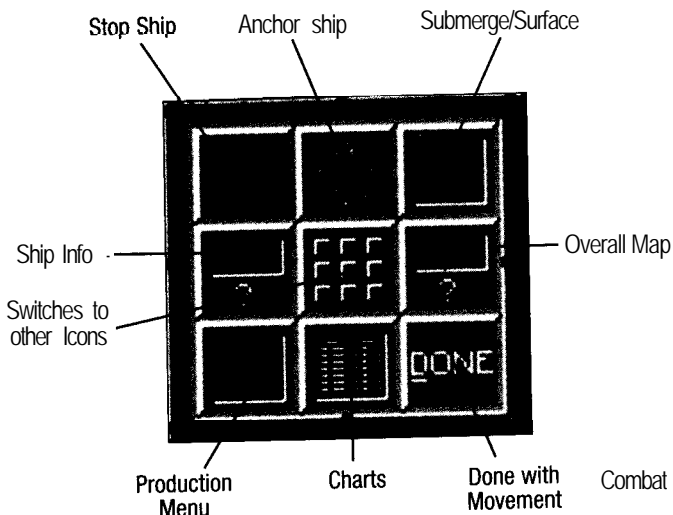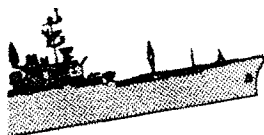
f. City list and information button, will bring up a list of all cities showing city name, victory points, class, size, if it has an airfield or shipyard, how many people, chemicals, uranium, bauxite, and oil each city has.
    Keyboard command is <F2>.

g. Production Screens button, will take you to the COMMUNITY ASSETS MENU,
    Keyboard command is <B>.

h. Game statistics button, will take you to the GAME STATISTIC graphs for VP earning rate, Casualties, Tech rate, Resource rate, Atomics rate, and Culture rate.
    Keyboard command is <O>.

i. Oone button, will cause you to leave the movement screen and continue on to the community assets menu.
    Keyboard command is <D>.

The second set of buttons as accessed through the Button box toggle button are as follows:

j. Save button, will save the present game and return you back to the main menu,
    Keyboard command is <V>.

k. Abort button, will end the game and project the final score.
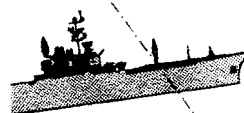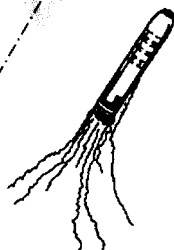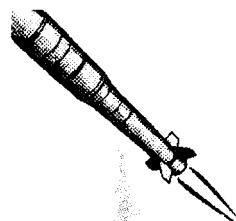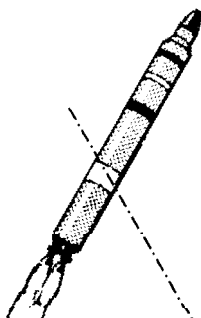   Keyboard command is <ESC>.

l. Music button, will toggle music on and off

m. All piece information button, will bring up an information box showing the hitting power of all pieces against the opposing pieces.
    Keyboard command is <I>.

n. Digitized sound button, will toggle digitized sound off and on.

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o. Sweep button, only applicable to minelayers, if the minelayer is in a hex containing mines depressing this button will cause the mines to be removed from that hex.
    Keyboard command is <K>.

p. Drop button, only applicable to minelayers will cause the minelayer to drop mines into that hex.
    Keyboard command is <M>.

q. Toggle button, will allow you to set up the parameters for better viewing on Your particular computer. If your screen does not look right, you might try retrace on and/or direct palette calls to see if you get an improvement.
There are 6 variables that can be set by the user. They are as follows:
    1) The first variable is for the method of the production menus. There are three ways that the production menu can be displayed; 1)show only built and buildable ships, 2)locked in position, and 3)recently buildable ships.

The first method will show the ships that can be built. When you select a ship to be built, other ships which you now cannot afford, would disappear. The second(default) method is all ships are displayed across the bottom of the screen, When you select an affordable (green letters), all others would stay on screen, but the statistics underneath them would turn gray. The last method, is any ship that you can afford at the beginning of the turn is displayed, thus keeping ships that you can afford on the screen, so that you may undo a choice and see all the possibilities.

    2&3) The raytracing and Vesa palette options are options that may be used if you have any problems with give different display methods. If You are not having troubles or "snow" on the screen, ignore these two options.

    4) Ship Movement Rate -This notes the speed of the ship movement. If you are using a machine that has slower ship scrolling than you would like to see, raise this number, Raising it will make the ships move quicker, but it will also make them move in a jerky fashion.

    5) Plane Flying Rate -This notes the speed of the planes flying in for an attack. It is controlled the same as the Ship Movement Rate.

    6) Combat Movies -This will toggle the mini movies that appear during combat on and off.

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Culture

Suburbs   Flight Deck   Reactor   Opera   Airport   Refinery   City Name

City Size

Suburbs

Class & Victory Points

Resources

Suburbs

Misslebase

Assembly

Convoy

University

Repair Yard

Shipyard

Downtown   Downtown   Hospital   Downtown   (EWS) Early Warning System   Mill   Training   Information Bar

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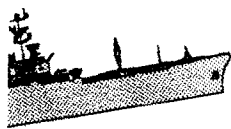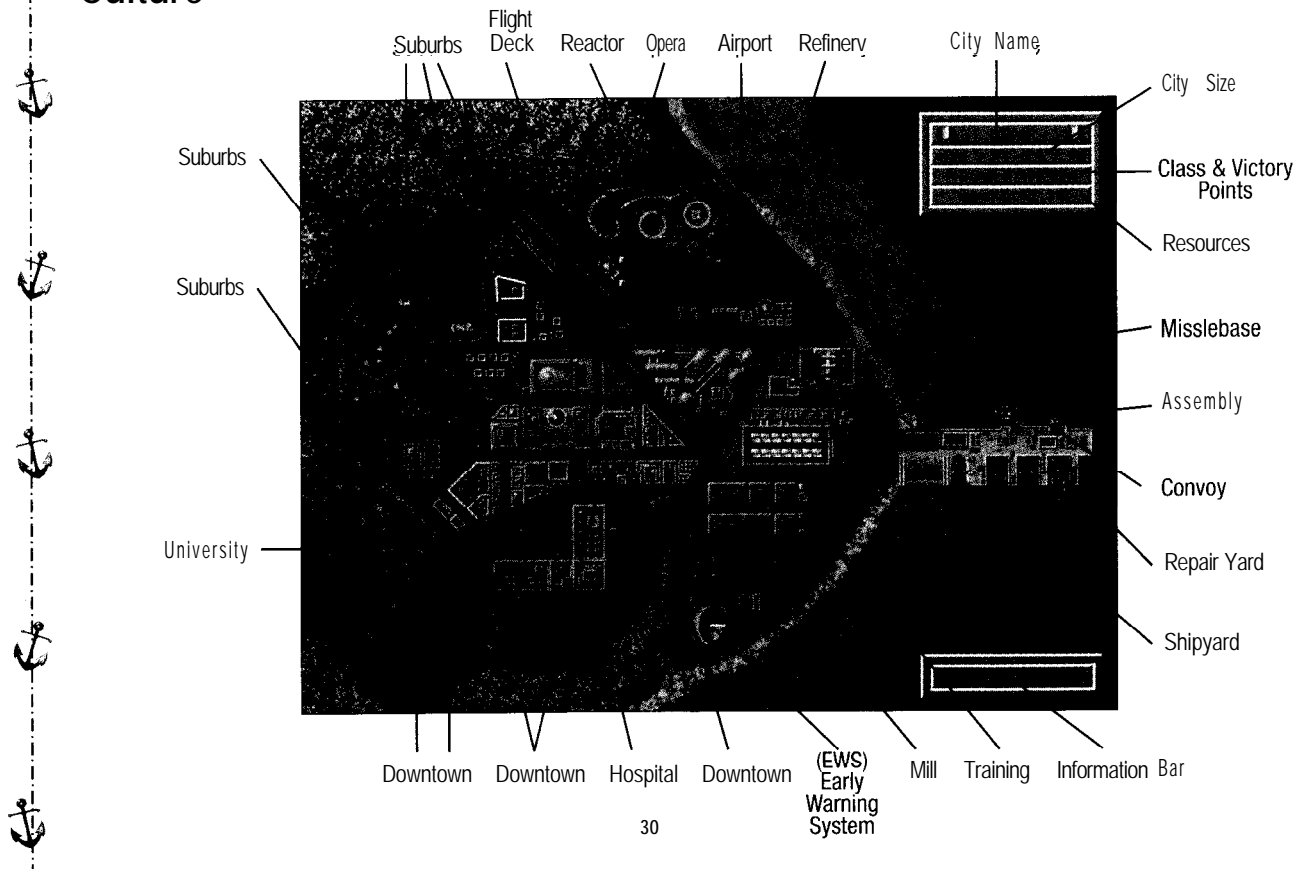
Keyboard command is <T>.

While we are discussing the movement screen, lets talk a bit about moving ships. The active ship is indicated by a white/red rectangle around it on the scrollable map. If movement is still available for this ship it will be indicated in your side's information box and also by a green arrow icon on the side of the ship. If you have a red arrow icon on the side of a ship, this indicates that this ship has no movement left during this turn. If a ship has a green/red arrow icon this indicates that the ship has been stopped but still has movement left. To bring up information on a ship just right click on the highlighted piece. If a piece is not selected you can manually select any of your ships or pieces by right clicking on that piece.
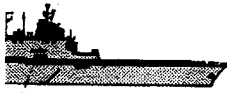
To actually move a ship just select the hex you wish the ship to move to. Watch as the ship majestically travels to its destination, If the ship can't reach its destination during this turn it will have a yellow up arrow icon placed on its side, this indicates that the ship will continue its movement next turn. If you reselect this ship, you will see the ship's path and how many turns until it reaches it final destination displayed on the map. Once you have moved a ship you can not take that move back.

As ships are moved, enemy ships that come into range will be sighted. This is a method of locating enemies forces, The other way is to send bombers on patrol missions. When a bomber is selected as the active piece, and if you would like to send it out on patrol mission, click anywhere on the map (keyboard command <P>) and the bomber will patrol the sea lanes for ships in the radius of its searching area. Patrol ranges vary by the number of patrols you send from that city. The first patrol searches out 5 hexes. Subsequent patrols expand the search range to 7,9, and 11 hexes. Planes that performed a patrol mission will not be able to bomb that turn,
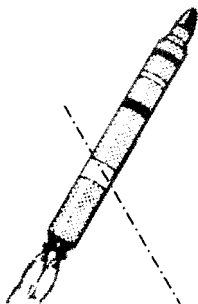
2. COMMUNITY ASSETS MENU screen (see Culture)
In this screen you are able to build and improve your cities. By using culture points you can buy items in your cities. The following is the list of items and their benefits,
a. OPERA
Increases your city victory points and generates 5 cultures per turn. Only one per city is allowed.
b. HOSPITAL
Increases your city victory points and will repair damaged cities by 3 points per turn, Only one per city is allowed.
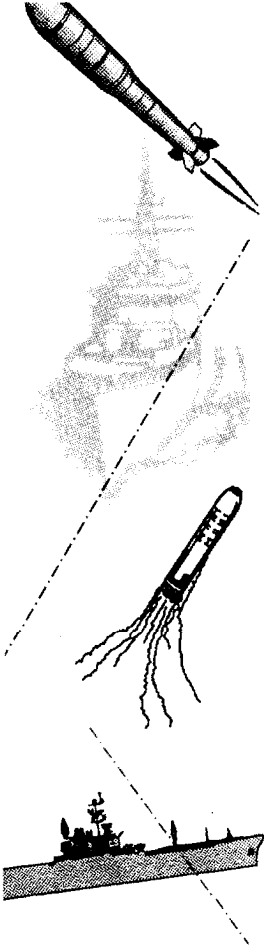
c. UNIVERSITY

Decreases Your city victory points and will generate 5 cultures per turn. Universities are required in order to build some of the more useful items. You can build more Universities as your city grows.

d. DOWNTOWN

Increases Your city victory points and will increase Your city size by 5 up to the city maximum of 127.

e. TRAINING

Simple rules: 1 needed to build Super Carriers.

Advanced rules: 3 needed to build Super Carriers and will also generate 1 tech and 1 atomic per turn. Requires 3 people to build each Training.

f. ASSEMBLY

Simple rules: 1 needed to build Super Battleships

Advanced rules: 3 needed to build Super Battleships and will also generate 1 tech and 1 resource per turn. Requires 3 chemicals to build each Assembly

g. REACTOR

Simple rules: 1 needed to build Super Submarines.

Advanced rules: 3 needed to build Super Submarines and will also generate 2 atomics per turn. Requires 3 uranium to build each Reactor

h. MILL

Simple rules: 1 needed to build Super Destroyers.

Advanced rules: 3 needed to build Super Destroyers and will also generate 1 resource and 1 atomic per turn. Requires 3 bauxite to build each Mill

i. REFINERY

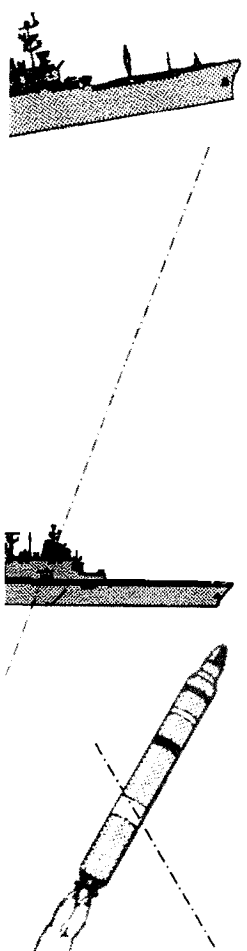Simple rules 1 needed to build Super Transports.

Advanced rules 3 needed to build Super Transports and will also generate 2 resource per turn. Requires 3 oil to build each Refinery.

j. FLIGHTDECK

Repairs air power of carriers within six hexes in combination with airfields.

k. EWS

Lets city see out 5 hexes(includes submerged submarines). University required to build.

l. REPAIR YARD

Triples the repair rate for ships within the city's port repair range of 1 hex, as long as ship isn't in the same hex as an enemy ship. Universities are required to build.

m. MISSILE BASE

You can build up to 3 bases as the city grows. Allows the city to shoot cruise missiles. Universities are required to build.

n. SHIPYARD

Allows ships to be built in this city Takes 5 turns to build.

o. AIRPORT

Supports up to 4 bombers. Takes 5 turns to build.

p. CONVOY

Increases city class by one. Will grow city by 3 every turn up to the maximum city size of 127. Takes 2 turns to build.

On the left side of the COMMUNITY ASSETS MENU screen is a list of all the items that can be bought for each city. Through examination You can determine the victory points, size of city necessary, and culture point cost associated with each item. By placing Your mouse over the items that can be bought You will be shown the detailed information of that item in an information box at the bottom.

On the right side of the screen is where you buy items for each city. All the cities that You own are listed here followed by a series of boxes. To buy an item for a city the box must have a green letter in it. This will be a green lower case letter if none of those items are in the city Yet, or a green upper case letter if the item is in the city but You can buy another. To buy an item, select the letter associated with that item. The background of that letter will change, along with the deduction of culture points and the update of the screen. To deselect an item, click on the box and letter with the right button. White letters indicate that You can't buy this item. White capital letters indicate the presence of this item, and white lower case letters indicate that you don't have one at this city Yet.

When You are finished with this screen select <D>one to continue to the build Menu screen.
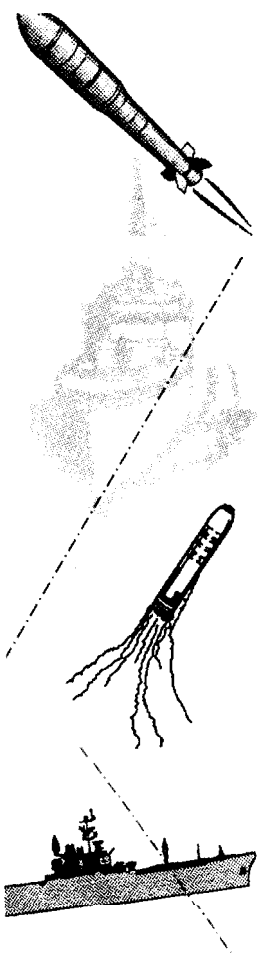
3. BUILD MENU SCREEN (see Production Menu)

This screen is has three main areas. The center of the screen is covered by the scrollable map and allows You to view the highlighted city. The top area has a list of all Your cities (listed in white) and any cities not owned but part of one of Your cities country (listed in black). Along with the city name are the: victory points, class, size, how much it expanded or shrunk last turn, if it has a shipyard (s) or airport (a), if it can build Super Ships (C-Carrier, B-Battleship, S-Submarine, D-Destroyer, T-Transport) and if a convoy(c) is present in this city. Selecting one of Your cities will center the map on it and highlight that city for further action. If You select a city You don't own You may be able to bribe it into joining Your side and owning it without invasion as long as You have enough technologies (t) and resources(r) available. If You can't bribe it, a red information strip will come up explaining how many technologies and resources are necessary to bribe. You can also click on the city size and expand the city using technologies and resources. This is a vital feature because city size expands immediately, so if You have an imminent invasion against You, You can expand the city beyond the capabilities of that ship's strength.

At the bottom of the screen is where You buy new pieces. This works similar to the initial purchase of pieces, except using technologies, resource and atomics (atomics in advanced rules only). In the top right corner of the screen You will notice the number of technologies, resources, and atomics You have available. Under each of the ships is listed its cost in technologies, resources, and atomics. To buy a ship the highlighted city must have a shipYard. If You have enough technologies, resources, and atomics, click on the ship with the left button. The number of ships that can come into a port each turn is equal to the number of water hexes surrounding the port plus the port itself. If You buy more then the maximum number of ships they will arrive in the port as space becomes available. To deselect a ship click on it with the right button. To buy a bomber the highlighted city must have an airfield, otherwise buying a bomber is the similar to buying a ships. Each airfield is limited to a maximum of four bombers. Buying forts works the same way except that You place the fort in a land hex. Each city is limited to four forts. Across the bottom of the screen, there are some options that You can use. When You are done choosing ships to build, cities to bribe or build up.

4. COMBAT

Battle Stations! Battle Stations! Don Your earplugs, as the sounds of large guns can be deafening. Combat will occur when opposing pieces come within range of one another. When this happens the firing piece will be highlighted by a red/white rectangle indicating it is ready to fire. The pieces that can be fired upon will have numbers placed over them, for example: 5 / 8. This would indicate the piece has 8 damage points left, and if hit, would have 5

Production Menu
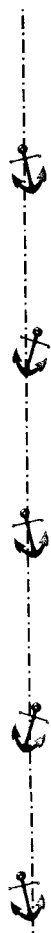
Country   City Name   Victory Points   Class   Size   Growth This Turn   Growth Last Turn   Shipyard Present   Airport Present

```
I:      Tokyo   3020UP c|t sz( 60+ 0)[ +0] Shipyard Airport
I:   Iwo Jima   100UP c|t sz( 10+ 0)[ +0]          Airport
I:      Guam   100UP c|t sz( 10+ 0)[ +0]
I: Wake Island   100UP c|t sz( 15+ 0)[ +0]
I:     Otaro   700VP c|f sz( 25+ 0)[ +0] Shipyard Airport
    TOKYO
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              100 col
           (10) c|E
  Iwo Jina
```

Ship Picture —

{Ship Name

cost

Number Being Built

|Recon Map
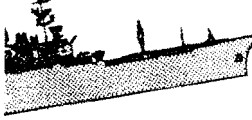
of those removed. You will also see an indication of all targets in range, colored yellow on the full view map. In a target rich environment you may need to choose from many targets. To choose a target, select the target with the mouse. Stand back as the turrets rotate, the guns fire, and the hits are recorded. If things go well you will send another one of your enemy's ships to the depths of the ocean. Aircraft properly used can give any navy a heavy offensive punch. When a carrier is highlighted for battle you will notice in that side's information box: the name Carrier, two green bars: one for damage, and the other for aircraft, and underneath that, the number of air attacks that carrier can launch each turn. At the top of the screen will be a message on which air attack is ready. The number of air strikes you have are based upon the carrier's air strength. Examine the following table:

#of planes	#of attacks
1 - 3	1 attack
4-7	2 attacks
8+	3 attacks

As you fight air battles you may lose aircraft to enemy anti-air fire. The only way to replenish these aircraft is to move the carrier within three hexes (six hexes if the airfield has a flightdeck) of a friendly airfield. To launch an air attack, click on the target with Your mouse. The aircraft will then fly to the enemy, deliver its ordinance, take any anti-air hits, and return home. Bombs away.

Bombers are land based aircraft that have a much longer range than carrier aircraft. The bomber can only launch an attack on the turn immediately following that side's movement. Each bomber group is composed of 2 bombers with a maximum of four groups per airfield. In the information box is a list of the available bombers for the combat mission and the number in each group. If a bomber group has only one bomber You may want to wait one turn for it to rebuild it size back to two bombers because once both bombers are gone the group is destroyed. Sending a bomber into combat works the same as using carrier aircraft. To the left of the full view map you will notice two buttons, a detailed screen, and firing icons. During, combat if you wish the piece not to fire, select the "ignore unit" button, If You wish the computer to control the firing, select the "auto shoot" button. Underneath the detailed picture of the firing piece You will notice some icons. Their colors and their meaning are as follows: green · ready to fire; red · already fired; yellow · waiting for turn to fire.

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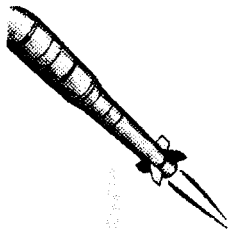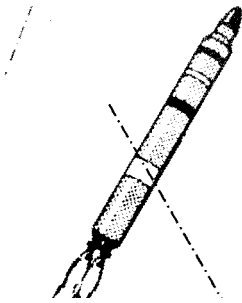
9. **The end of the game** (see Campaign)
The end of the game is reached when the conditions originally selected are met. These can be based on turns, cities, or annihilation. It's important to remember the end of game criteria to insure that your victory points will win it for you. After the finish of the game you will be brought to the GAME STATISTICS screen to view the progress of the game throughout the turns. If You're fighting a campaign You will be given the option to continue as long as the campaign objectives are met.

3. Fight <C>ampaign
One of the more interesting aspects of the Grandest Fleet is the campaign. Playing a campaign will allow you to carry over your remaining forces of one battle into the next. The campaigns play the same as the battles with some added features. You can play 2 or 3 battles to complete a campaign. Each battle has certain criteria that needs to be completed by the attacker in order to continue into the next battle. At the end of each battle, 25% of the value of each ship left will be carried over to the next battle. For example, if you had a battleship and destroyer remaining at the end of the battle you would receive 9 extra buy points in the next battle: 7 points for the battleship (30 points / 4) and 2 points for the destroyer (11 / 4). To win the campaign You need to finish with the most "victory points" and complete the tasks associated with the type of campaign you have chosen. Once in the Campaign screen you will have many options to design the campaign to your taste:

  a. <A>bort · selecting this option will return you to the main menu
  b. &tart · selecting this item will start the campaign with the options you have selected.
  c. <T>ype -the heart of the campaign is the type you select. Selecting this item will toggle between the following types of campaigns.

1. Supply Ships -The attacker must get supply ships to the designated areas. The attacker will find out where the target area is on the 5th turn.
>   Map 1: Start with 5 supply ships. Must get 3 to carryover zone. Attacker and Defender both start near separate map edges.
>   Map 2: Same as map 1, but you start with the number of supply ships carried over from map 1.
>   Map 3: Same as map 1, but with the number of supply ships carried over from map 2.

2. Take Cities   The attacker must capture and hold a certain number of specified cities, The defender will find out

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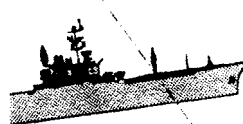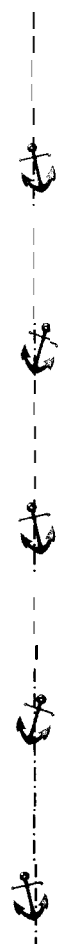
Campaign

Player #2
Defender

Player #1
Defender

Difficulty   Level

CAMPAIGN SCREEN
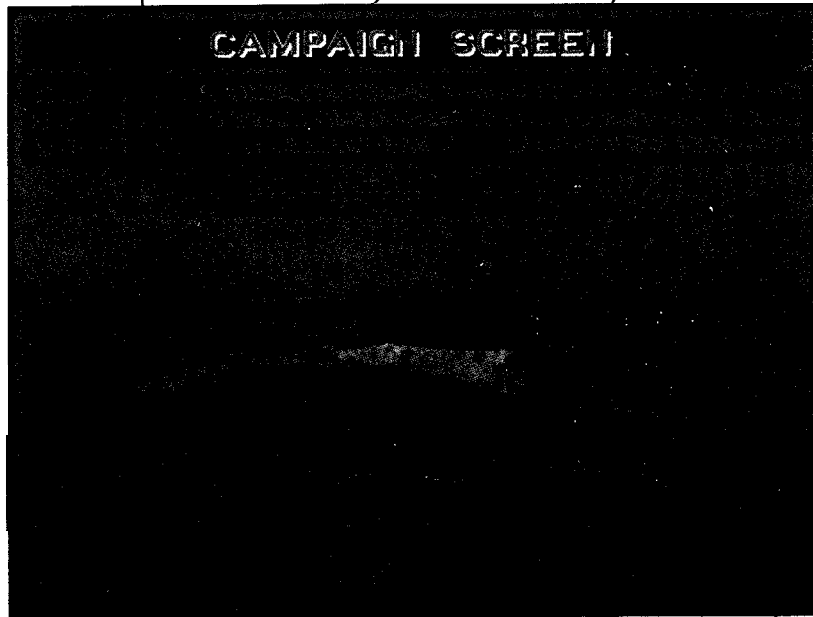
Campaign
Type

Scale of
Battle

Description o f
Map 1

Description o f
Map 2

Coniinue

Abort
Campaign

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the attackers target cities on the 5th turn

Map 1: Must take and keep 2 of 3 specific cities on map. Attacker and Defender start near each other

Map 2: Same as map 1, but you must take and keep 3 of 4 specific cities,

Map 3: Same as map 1, but you must take and keep 3 of 5 specific cities.

3. Outforce

Map 1: Must outnumber enemy forces by 50% at end of battle. Attacker and Defender start scattered across the map.

Map 2: Same as map 1, but you must outnumber enemy forces by 100%.

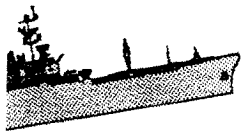Map 3: Same as map 1, but you must outnumber enemy forces by 150%.

4. Break Through · The Defender sees all of the attacker's potential starting zones. The attacker will not see where the breakthrough zone is until turn 5. It will then be shown on the small recon map that is displayed in the lower right corner.

Map 1: Must get 60 points worth of ships to the carryover zone. Attacker starts near map edge, Defender is scattered across map.

Map 2: Same as map 1, but must get 90 points worth of ships to carryover zone.

Map 3: Same as map 1, but must get 120 points worth of ships to carryover zone.

5. Random

Map 1: ???? Random mission on each map... can be of supply, take cities, outforce, or break through.

Map 2: Same random as map 1.

Map 3: Same random as map 1.

d. s&ale, toggles between small and large scale. This will change the initial buy points each player gets to start each battle.

e. <M>aps, toggles between 2, and 3 maps varying the length of the campaign.

f. Attacker<1>,   toggles between officers to determine who will be the attacker.

g. Defender<2>, toggles between officers to determine who will be the defender.

h. <D>ifficulty AI, lets you choose from 21 levels of computer player difficulty. For information, the Attacker and Defender bonus notches and buy points are displayed under the <M>aps button. The bonus notches are the points the players will receive if they win the campaign along with any notches won during each of the bat-

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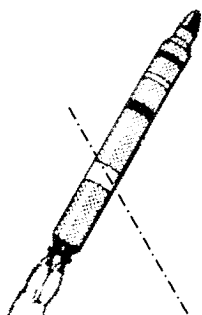
tles. The buy points are the number of buy points that player will receive in each map.

4 <M>odem   Operations

There is nothing like the excitement of pitting Your abilities with another human. Playing by modem offers this by allowing You to play over Your phone lines to compete with Your buddy. When playing via modem, there may be some delays while data is being transferred between the two machines.

To start modem play choose <M>odem   Operations from the main menu this will bring You to the MODEM TERMINAL screen. At the bottom of the screen are two information boxes. The top information box is a help box explaining what needs to be done to hook up and play the game, following these instructions should get You up and playing by modem. The bottom information box lists the present configuration of your modem. In the center of this screen is the terminal, it will allow You to type in modem commands for local control of the modem. At the top of the MODEM TERMINAL screen You have five options to choose from.

Null Modem play is quite easy to establish. Connect the two machines via null modem cable(with a null modem). Enter the Modem options; connection will be automatic if you have the Communication ports set for Com 2. Once the ports are set correctly, You will have established a link.   One of the two players must become a controller before continuing the game(like   with modem). From this point, the game will act like a standard modem connection.

    a. <F2> Local Player · select this button to cycle through the available players until the one you wish to play with is selected.

    b. <F4> Answer · this button will cause the modem to pick up immediately and should be used to answer the phone when the other player is calling and the phone is ringing.

    c. <F5> Dial · if You are the calling party you will want to select this button. A question box will come up asking "Enter a telephone number to dial:", following the "ATD", enter Your opponents telephone number and hit return. The modem will now pick up, dial the number, and attempt to connect with the other computer.

    d. <F6> Hangup -selection of this button will hang-up the modem aborting any modem operations in progress.

    e. <F3> Settings · will bring You to the MODEM SETTINGS screen. Here You can configure the game for Your particular modem.

        1. Com # <H>ardware · selecting this button will allow You to change the address and interrupt for your

modem. The default address and interrupt should work for 99% of the computers so You shouldn't change these settings unless You understand what You are doing.

        2. <C>omm port# · choose this button to cycle through the four available com ports. Most computers have their modem set to com port 2 if this is not the case select the proper com port for Your computer.

        3. <B>aud · select this button to toggle between baud rates from 300 to 19200.

        4. <P>arity   · the settings are even, odd, none, mark, and space and need to be set the same on both computers Odd, mark, and space are rarely used.

        5. <D>ata bits · sets the number of data bits the com port will use. Normally 8 bits are used when parity is set to none, while 7 bits is used with even parity. Data bits, like parity, must be set to the same value on both computers.

        6. <S>top bits · determines how many stop bits are used to mark the end of the transmitted characters. The default is 1. It is rarely necessary to change this setting. Must be set to the same number on both computers.

        7. <D>uplex · this option controls whether Grandest Fleet will display characters locally as they are sent out the port. Use Full duplex to disable the display of characters. Half duplex (or local echo) forces Grandest Fleets' Modem terminal to send all outgoing characters both to the port and the terminal display.

        8. &nit-this option will allow You to enter an initialization string that will be sent to Your modem even/ time You start the Modem terminal. ATZ should work fine for most computers. Sa<V>e   will allow you to save the present settings for future starts of Modem Terminal. To leave the screen and return back to the terminal just select <E>xit.

f. <F10> Become Controller · once both computers are connected, one player will need to become the controller, that player should choose this button. When You select this option the "No link" message will change to "Control pending" while trying to sync with the other computer. Once the controller has been established you will notice the message change to "You control", (on the remote computer it will show "Remote controls"), and the remote player's name is now displayed.

g. <F1> Chat · You can use this keypress   any time during modem play to send a message to your opponent. Once
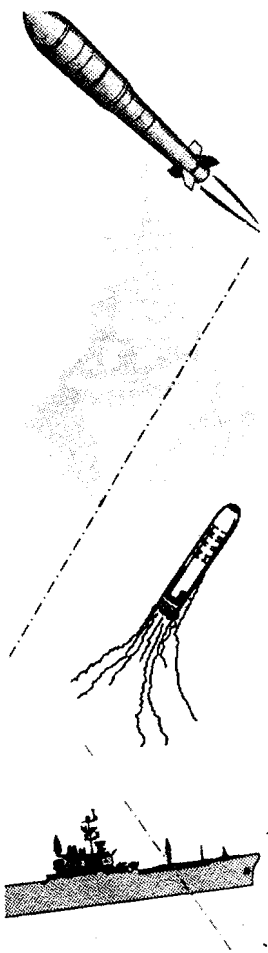
you've made a connection and the controller has established control it's now time to start the game. Press ESC to return back to the MAIN MENU. You will now notice in the lower left of the screen Your modem opponents name is shown, this is your indication that modem play is operational. The controller will now need to choose the starting options of the game this is done the same as normal game setup. Once the controller has selected the starting options this information will be sent to the remote computer and Grandest Fleet play will begin. Caution, You will not be able to play a saved game unless it's on both computers. During your enemies movement phase You will be able to view the map and see any enemy units that end their turn within Your sighting range. You will also be able to review statistics and move between Your play screens but will not be able to give orders until your turn,

The maps on both machines may have land appearances that are different. This will not affect game play, cities and land will be placed the same on both computers, only the look may be different. The program will do it's best to handle excessive line noise, but sometimes an unrecoverable error situation will occur. The game is saved each hour so if disconnection does occur just restart from the last modem saved game. The rest of modem play follows the same rules as general play.

5. <R>estore games

Selecting this item will take You to the restore game screen. Here you will find everything you need to restore a previously saved game. Select the game you wish to restore and then select <R>estore game and You will then be brought into that game. Selecting Scrol<L> will cycle You through all the available screens of saved games, Selecting <D>elete will bring up a question box asking if you wish to delete the selected game, answer Yes to do so, and no to keep it. Selecting <A>bort will take You back to the main menu.

6. E<X>it

Selecting this option will prompt the question, "Exit Grandest Fleet and return to DOS". Answer "Yes" and You are now in DOS, game over.
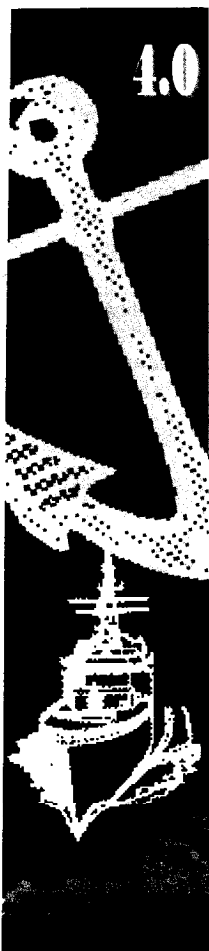
4.0 Strategy Tips and Notes

This section will give You a more detailed knowledge of the working of 'the game. Explained will be all the data for the different parts of the game and how to use them.

1. Cities

Acquirino. holdino and buildina your cities is the secret to winning the game. If You don't do this, no amount of sea power can save you. Cities can range in size from 0 to 127 and city class from F to A (A is the highest). To get information on a specific city, click with the left mouse button on the city square and the city information screen will be displayed. As Your city increases in size You will notice it changing on the map from a couple of buildings to a large metropolis, Victory points for a city can range from 100 - 6300. A very good starting city will be 1500 VP. If You want to win the game, owning that 1500 VP city and building it to a 6300 VP city couldn't hurt. If you own a city your flag will be hoisted, and the name will flash with Your color (red for side 1 and green for side 2); the city will also be indicated on the full view map as Yours. If the city is neutral its Flag and name will be white. All cities have port areas. These are represented by a patch of sparkling water next to the city. If the city has a shipyard it will be represented by a dock located in the port. If the city has an airfield you will see an airfield with a control tower and blinking runway lights. As you build items in your city they will be represented by the appropriate icon symbols, To grow a city, use the technologies and resource points in the BUILD SHIP MENU by selecting the city with the mouse, repeating as necessary to build the city to the size you wish. As Your city increases in size you get many benefits. All cities start with 1 point of anti-air fire and as the city grows greater than 10,2 points anti-air and greater than 25,3 points anti-air. As the city grows past 60 You receive +200 VP and past 100 You get +500 VP per turn. Cities start with a production of 5 cultures per turn. This increases by 5 cultures per every 30 size increase. Try to keep Your cities size above 13. This will stop a lone transport from sneaking up on You and invading the city.

Technologies and resources are the key to continue expansion to Your naval fleets. Each city produces technologies and resources each turn. As the class of Your city increases, (from class F to class A) the numbers of these that are produced each turn will also increase. The class of Your cities can be
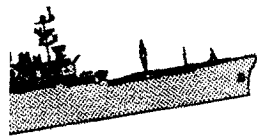
increased in several ways. If the size of the city reaches 25 the class increases by one, if the size then reaches 50 it increases by one more. If you own all cities in a country the class of all those cities will increase by one. You can also increase the class of a city by buying a convoy.

Ok, so You didn't ask to be elected Mayor but somebody needs to run these cities. An important consideration is to improve Your cities. One of the first things all cities need is a convoy; this will cause your city to grow by 3 per turn, Though universities lower VP for cities, they will give You more cultures per turn and are necessary to build some of the more exotic items. Once You have a university You might build an EWS in cities close to the action; this will give your cities the eyes to see approaching ships, up to five hexes away. As your shipyard cities grows it will soon reach the size where Training, Assembly, Reactor, Mill and Refinery items can be built. These items will allow you to build Super Ships, it's never to early to think about these ships. One Super Ship early in the game can be devastating to Your opponent. To build these special items for a city You must have enough advanced economics to do so. Examine the following graph:

Item	Requirements to build
Training	3 people for each Training
Assembly	3 chemicals for each Assembly
Reactor	3 uranium for each Reactor
Mill	3 bauxite for each Mill
Refinery	3 oil for each Refinery

Each city You own has some of these advanced economics. The number of these advanced economics are combined for the purpose of building city items. To find out how many of these advanced economics you have, You can select the city list and information button which will give You a breakdown on each individual city. You could also get individual city information by selecting that city on the scrollable map with the right mouse button, In the bottom left box you will notice the city name, city structures, size, victory points, class, number of technologies and resources it produces, each turn. In the center box You will notice the combined total of people, chemicals, uranium, bauxite, oil, Trainings, Assemblies, Reactors, Mills, and Refineries from all your cities. Use this information to help You determine which cities you need to capture, to build the Super ship of Your choice. By capturing and holding key cities You can also keep your opponent from building Super Ships.

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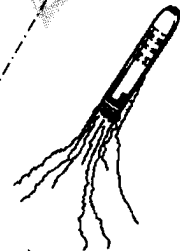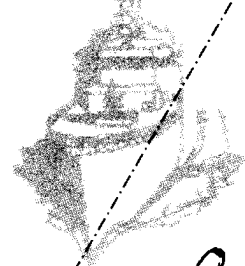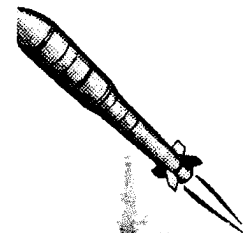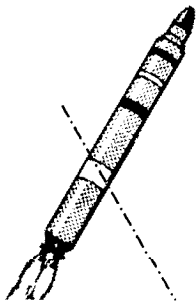
If You have some extra culture points You might think about adding a Downtown; it increases your city size and gives you extra victory points. If Your city is constantly under attack the Hospital is the answer to this dilemma; this item will repair city damage each turn and increase Your victory points. Though expensive, an Opera will generate 5 cultures per turn and gives the greatest city victory point bonus.

Missile bases are the best city defense money can buy. They require several universities to build, but each city can have up to 3 of them. If You need a Shipyard or Airfield You can always build them. They take 5 turns to complete, but once there, cannot be destroyed. Last but not least come the Repair Yard and Flightdeck. These items are good for cities close to the action where they can keep Your existing ships in top-notch shape. There are two ways of capturing a city, through bribery or combat. The cities in the game are placed into two or more countries. A country is a collection of cities represented by the same country number. You can see this number by viewing the city list, the city will be preceded by the letters "co", for example "co5" would mean country number 5. If a city is still neutral and of the same country of a city You own, You can try to bribe it in the BUILD SHIP MENU. This city will be colored black; just select it. If it can be bribed it will now say "BRIBED!" and You will own] it next turn. Proper use of this feature can build up Your city base quickly. To take a city by force You need to move a ship into that city's port and lower that city's size to that ship's invasion factor. If You move a ship into a city's port, the city will be sieged and lose one point of size that turn. To quickly take a city You may need to bring in ships with a heavy bombardment ability to lower the city size, or bring in a ship with a large invasion factor such as a transport. The latter is better because You won't need to rebuild the city as much, since bombardment will lower the size and destroy installations. Once a city is invaded convoys in that city will be destroyed, but other city item and facilities will stay intact. If one of Your cities is bombarded to zero You will lose that city. If you lose a city either by bombardment or invasion, all planes and ships purchased for that city will be lost.

Missile bases are the best way to protect a city but can take awhile before a city can afford it. Forts are a good standby until missile bases become available. They are expensive, but hit ships hard and take a lot of punishment before destroyed.

2. Ships

Though true, that cities are the most important part of the game, You can't hold them without good use of sea power. There are 15 different types of ships available for Your use including Super Ships (the owners of the ocean]. Which ones to buy and how to use them vary on Your situation, but there are some basic strategies. Here's a list of those ships and their capabilities.

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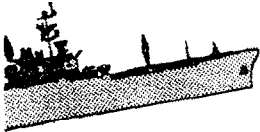
max. damage

The amount of damage that ship can take.

movement

How far the ship can move each turn.

attack range

How close the ship needs to be to attack other ships.

anti-air range

If an air attack happens within this range the ship will help with anti-air fire.

bombardment

The amount of damage the ship will do to cities.

invasion

Will invade a neutral or enemy city with a size equal to or less than this number, if the ship is sitting in the enemies port (sparkling blue water next to city).

initial cost

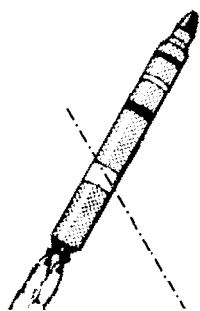The purchase price when bought on the initial buying screen, also used to determine carryover points in campaigns.

sees out

How far out this ship will detect other enemy ships.

a. Carrier

10 max. damage, 4 movement, 0 attack range, 1 anti-air range, 0 bombardment 3 invasion, 31 initial cost, sees out 5 hexes. 7 max. air strength, planes fly range 5.

For long range offensive firepower the Carrier is the way to go, it's not cheap but worth every penny invested. Used in conjunction with another Carrier and maybe a couple of CVL's You can sight, attack, and sink most ships before they get within range. Make sure that You don't wander too far from a friendly airfield because once this lady's air-

craft are gone she becomes expensive cannon fodder.

b. CVL

7 max. damage, 4 movement, 0 attack range, 1 anti-air range, 0 bombardment 3 invasion, 22 initial cost, sees out 5 hexes. 4 max. air strength, planes fly range 5.

Much like her big cousin, the CVL is the poor man's Carrier. Run a couple of these with Your carrier to give added offensive punch and anti-air power. The submarine's nemesis is the carrier aircraft and that's true in Grandest Fleet also.

c. Battleship

30 max. damage, 4 movement, 3 attack range, 1 anti-air range, 4 bombardment 3 invasion, 30 initial cost, sees out 3 hexes. Against ships in the same hex, can fire secondary guns with the power of a Destroyer.

This ship is no slouch, with the most firepower of a any standard ship. With 30, count them, max. damage points, it doesn't ' sink' easily. Its heavy armor will let it close in and sink a Carrier. A few of these running together can usually overwhelm most fleets. You have a city that is hard to crack? This ship will hit it with 4 bombardments every turn.

d. Cruiser

21 max. damage, 4 movement, 2 attack range, 1 anti-air range, 3 bombardment 3 invasion, 19 initial cost, sees out 3 hexes. Against ships in the same hex, can fire secondary guns with the power of a Destroyer.

Not quite the firepower or armor of the battleship but with its cheaper price still quite attractive. It has a 3 bombardment rating, which can be quite useful to assist in any invasion operation.

e. Destroyer

8 max. damage, 5 movement, 1 attack range, 0 anti-air range, 2 bombardment 2 invasion, 11 initial cost, sees out 3 hexes.

You need some firepower quick, this ship will be there lickity-split. So You have a Submarine to sink? Well, here's
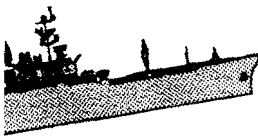
the ship for the job. This ship will sink your enemy's subs in one hit! Later gator.

f. P.T. Boat
3 max. damage, 6 movement, 0 attack range, 0 anti-air range, 0 bombardment 0 invasion, 4 initial cost, sees out 3 hexes. Will remove some mines by moving into hex with mines.

With its 6 movement and cheap price there is no better scout available. It's so cheap buy a bunch and give them to your friends. Do you have a sub problem? Send one of these in. Though not as effective as destroyers, they will make a sub think twice about hanging around.

g. Submarine
6 max. damage, 4 movement, 1 attack range, 0 anti-air range, 0 bombardment 0 invasion, 12 initial cost, sees out 1 hex. Can surface for 5 movement and see out 3 hexes.

A wolf pack of submarines can overwhelm even the mighty Battleship. The Battleship will take one torpedo after another as the sub sits back and laughs. With its ability to surface for quick speed and submerge for stealth you get two ships in one. Its stealth characteristics will cause many ships to fall prey to this sneak as they wander into its range.
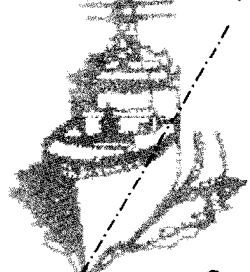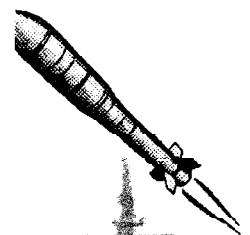
h. Minelayer
3 max. damage, 4 movement, 0 attack range, 0 anti-air range, 0 bombardment 0 invasion, 15 initial cost, sees out 3 hexes. Can not be used against AI player. Can lay and sweep mines, carries 7 mines,

So you want to protect your ports but don't have the funds to maintain a fleet? The Minelayer could be your answer. Surround your cities with mines and ships won't dare interfere with that cities activities. Can also be used to remove nasty enemy mines from out of your ship's path.

i. A.T. (armored transport)
3 max. damage, 5 movement, 0 attack range, 0 anti-air range, 0 bombardment 12 invasion, 6 initial cost, sees out 3 hexes.

Invasion is the answer to your city acquiring dreams, and there is no better standard ship than the A.T. It has good
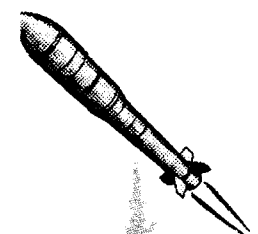
movement and can invade almost any city by itself early in the game.

j. Transport
3 max. damage, 4 movement, 0 attack range, 0 anti-air range, 0 bombardment 12 invasion, 3 initial cost, sees out 3 hexes.

Not as beefy or fast as the A.T. but at half the price, might just be what you want for your invasion needs.

k. Super Carriers
20 max. damage, 4 movement, 0 attack range, 1 anti-air range, 0 bombardment 6 invasion, 46 initial cost, sees out 8 hexes. 12 max. air strength, planes fly 8 range.

Strong contender for the most powerful ship. Has a long sighting range and with 20 max. damage rating is hard to sink. If operated carefully it can get in three air strikes on all except other Super Carriers ships without return fire.

l. Super Battleship
48 max. damage, 4 movement, 3 attack range, 1 anti-air range, 8 bombardment 6 invasion, 45 initial cost, sees out 4 hexes, Shoots cruise missiles. Against ships in the same hex, can fire secondary guns with the power of a Destroyer.

A couple of these babies can give anybody nightmares. With its huge 48 max. damage rating they are extremely hard to sink. They also have the heaviest firepower and longest attack range of any ship. Its firepower is further improved by the addition of cruise missiles. Having a bombardment strength of eight makes no city safe with one of these around.

m. Super Submarines
12 max. damage, 4 movement, 1 attack range, 0 anti-air range, 0 bombardment 0 invasion, 18 initial cost, sees out 2 hex. Can surface for 5 movement and see out 3 hexes. Negates victory points of nearby cities.

Hard to sink, hard to spot, does heavy damage, and can run havoc on your enemy's victory points. What's not to
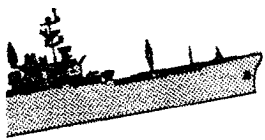
like? Place one (or how about two) of these in your enemy's ports and sink his ships as they come out; what fun.

n. Super Destroyer

16 max. damage, 7 movement, 1 attack range, 0 anti-air range, 4 bombardment 4 invasion, 16 initial cost, sees out 4 hexes.

They don't call this destroyer super for nothing. Better than a destroyer and still quite inexpensive to buy. With the greatest movement rating in-the game it's best used as heavy scout or for bombardments of hard to reach enemy cities. Don't forget the Super Destroyer is-the Super Sub's greatest enemy.

o. Super Transport

6 max. damage, 6 movement, 0 attack range, 0 anti-air range, 0 bombardment 70 invasion, 10 initial cost, sees out 3 hexes, Repairs self and nearby ships slightly each turn.

Just the best darn transport money can buy. With its 70 invasion factor cities will quake with fear as this tub approaches, Also can be used to keep ships repaired when a friendly city is too far away from the action.

p. Flagship

You get a Carrier flagship anytime your naval rank is greater than seaman and because it's free you won't be saying no. As your rank goes up, so does your Flagship's power and capabilities, until it is a practical floating arsenal. For every increase in your rank your ship will grow by 2 on the max. damage ladder. That's not all, you will also random-ly gain special abilities from the following list:

    Extra AA
    Faster Movement
    Farther hex sighting
    Plane attack range increase
    Repair itself and other ships close by
    invasion factor increase
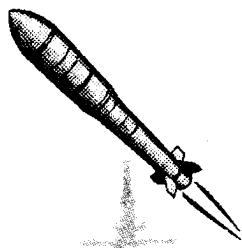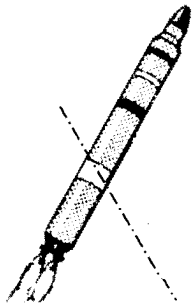
    Build small ships
    Build large ships
    Build Super ships
    Random Displacement
    Negate close by enemy cities VP
    Cruise   Missiles

Battleships and Cruisers have a secondary fire feature against any ship in the same hex as them. They will get two shots: one at the ship in the same hex and a normal shot to the ship of their choice. Bombardments can also be used to destroy planes on airfields if you choose to do so. If you bombard the city, city items might be destroyed, taking their advantages, including victory points, with them. The larger the bombardment factor of the ship, the greater the chance that a city item will be destroyed. This could be a good strategy to use to keep your enemy's cities unproductive.

There are several icons that can be placed on the sides of the ship giving you quick reference information, Following are the icons description in order as placed on the ships from left to right.

ICON	MEANING
green box arrow	movement still left for this ship
green/red box arrow	ship has movement but has been stopped
red box arrow	movement is done for this turn
green box R	within repair range of city or Super transport
yellow box anchor	ships is anchored and will be ignored
green box star	carrier is within replenish aircraft range
yellow box submarine	submarine is submerged
yellow box up arrow	ship has continuing movement orders next turn

3. Aircraft

There are two types of aircraft, carrier aircraft and bombers. Carrier aircraft operate off of carriers, and can only be reinforced from friendly city airfields. Bombers operate from airfields and can be reinforced to full strength by rest-

ing for one turn. Carrier aircraft range varies between the different types of carriers. Bombers have a range of 11 hexes. All cities with aircraft automatically see out 3 hexes. If you send a bomber on patrol this will increase to 5, each additional bomber increases the range by two hexes. If you send all 4 bombers on patrol your city will sight out 11 hexes for that following combat phase only. Once a bomber has been used for patrol it won't be available for combat during the next combat phase. Carrier aircraft can fly and battle during each combat phase. Bombers can fly only directly after that players movement phase. Anti-Air fire against aircraft work the same against both types of planes. The anti-air power of the item that is being attacked and all units that are within anti-air range are added up and used to determine how many kills are made on the attacking aircraft. Therefore, it's a good idea to attack the fringe elements of a force so as not to have to deal with the overlapping fire of many different pieces.
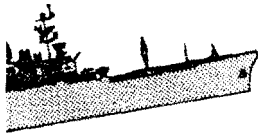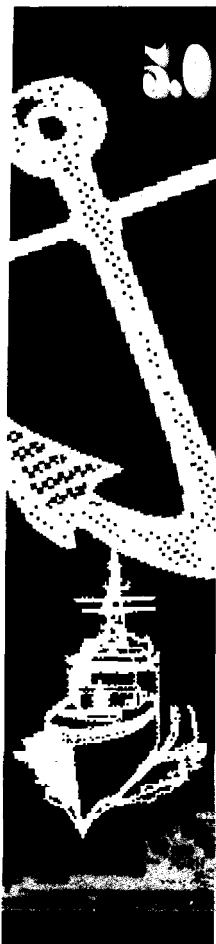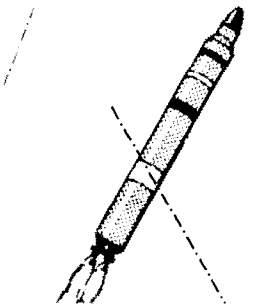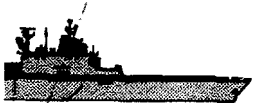
5.0 Tables

Anti-Air table

City Size/Effects Chart
A convoy will increase CLASS by 1.
Owning all cities in a country will increase all those city's CLASS by 1.
size 0- 9 = 1 Anti Air strength.
size 10-20 = 2 Anti Air strength.
size 21+ = 3 Anti Air strength.
Reaching size 25+ will increase CLASS by 1.
Reaching size 50t will increase CLASS by 1 more.
Reaching size 60t will increase VP value by 200.
Reaching size 100+ will increase VP value by 500 more.

SIZE	CULTURE POINTS PER TURN
00-29	5
30-59	10
60-89	15
90-119	20
120-127	25

CLASS	TECH	RESOURCES	TO GROW	BRIBE
A	8	16	03T+03R	12T+12R
5	4	12	04T+06R	16T+24R
C	6	6	04T+04R	16T+16R
D	8	2	05T+03R	20T+12R
E	4	2	06T+02R	24T+08R
F	3	1	04T+01R	16T+04R

Ship Information Chart

	Init Cost	Anti Air Range	Max Damage	Movement	Bomber	Invasion	Sighting	Attack Range	To Build	Continents
Carrier		31	1	10	4	0	3	5	07T+13R	Planes
CVL		22	1	7	4	0	3	5	06T+1OR	Planes
Battleship		30	1	30	4	4	3	3	34t+1OR	
Cruiser		19	1	21	4	3	3	3	24T+4R	
Destroyer		11	0	8	5	2	2	3	12T+4R	
PT Boat		4	0	3	6	0	0	3	02T+1R	
Submarine		12	0	6	4	0	0	1	15T+4R	Submerge
Minesweeper		15	0	3	4	0	0	3	04T+4R	
A Transport		6	0	3	5	0	12	3	01T+1R	
Transport		3	0	3	4	0	12	3	00T+1R	
Fort		15	1	20	0	4	0	3	35T+1OR	
Bomber		6	0	2	7	2	0	3	112T+2R	
Super TR	N/A		0	16	6	0	70	3	02T+3R	
Super DD	NA		0	12	7	4	4	4	13T+6R	
Super SS	NA		0	48	4	0	0	1	18T+6R	Submerge
Super BB	N/A		1	20	4	8	6	4	36T+15R	Cruise Missile
Super CV	NA		1	20	4	0	6	8	01OT+19R	Planes

Combat Chart

	Flat	Bomber	S CVL	S BB	S SS	SDD	S TR	Flagship	Convoy	City
CVLier	1	2	5	1	0	3	3	3	3	0
Battleship	5			4	0	6	3	5	3	4
Cruiser	4	1	5	3	6	5	3	5	3	3
Destroyer	1	0	3	1	3	3	3	3	3	2
PT Boat	0			0		1	2		3	
Submarine	0	0	5	4	0	2	3	6	3	0
Minesweeper	0	0	0	0	0	1	2	0	3	0
A Transport	0	0	0	0	0	1	2	0	3	0
Fort	0	0	4	0	0	6	3	4	1	4
Bomber		0	4		2	3	2	3	3	2
Fighter	1	0	3	5	0	3	3	4	3	3
Super CV	1	2		1		3	3	3		0
Super BB	10	0	4	10	0	4	3	7	3	8
Super SS	0		7	10	0	6	3	6	3	0
Super DD	2	1	6	3	6				3	4
Super TR	1	1	3	1	0	3	3	3	3	0
Flagship	1	3	3	1	0	3	3	3	3	0
Convoy	0	1	0	0	0	1	2	0	2	0

	Fort	CVL	Battleship	Cruiser	Destroyer	PT Boat	Submarine	Minesweeper	A Trans	Trans
Carrier	3	3	1	2	3	3	0	3	3	3
CVL	3	3	1	2	3	3	0	3	3	3
Battleship	5	5	4	5	6		0	3	3	3
Cruiser						3				3
PT Boat	3	3	3	2	1	3	6	3	3	3
Submarine		0	0	0	2		0		2	3
Minesweeper	0	0	0	0	1	2	0	2	2	3
A Transport	0	0	0	0	0	2	0	2	2	3
Transport	0	0	0	3	6	1	0	0	0	1
Fort	4	4	3	0		2	0	3	3	3
Super CV	2	3	2		2	3	2	3	3	3
Super BB	3	3	5	5	3	3	0	3	3	3
Super SS	7	7	10	12	8	3	0	3	3	3
Super DD	7	7	10	12	4	2	0	3	3	3
Super TR		3				3	0	3	3	3
Flagship	3	3	1	2	3	3	0	3	3	3
Convoy	0	0	0	0	1	2	0	2	2	3
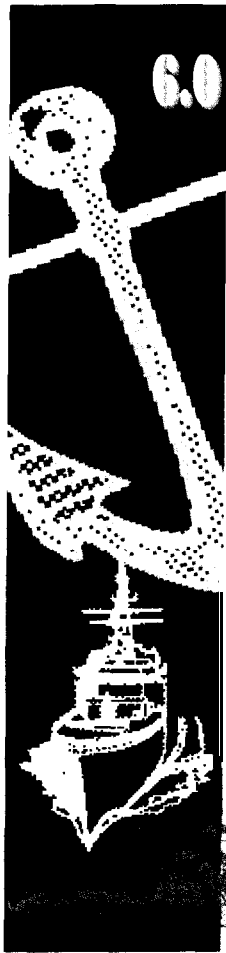
6.0 Keyboard Chart

Cover screens:
Hit any key to skip. Or use C on DOS startup line to bypass entirely.

During Modem games:
F1 to send messages to remote computer.
Shift **F1** to review the last message received from remote computer.

During most screens related to starting battles.
S to continue to next screen.
Escape key to abort back to previous menu, or top menu.

During Movement menu:
Escape key to abort or project game (if turn 7 or greater).
0, Q to end turn.
F6 to check patrol radius if a city airport hex is currently selected.
P to patrol with bombers.
H for ship to ship damage chart.
C to center screen on currently selected hex or ship.
M to drop a mine from a minelayer.
K to sweep a mine in a minelayer's current hex.
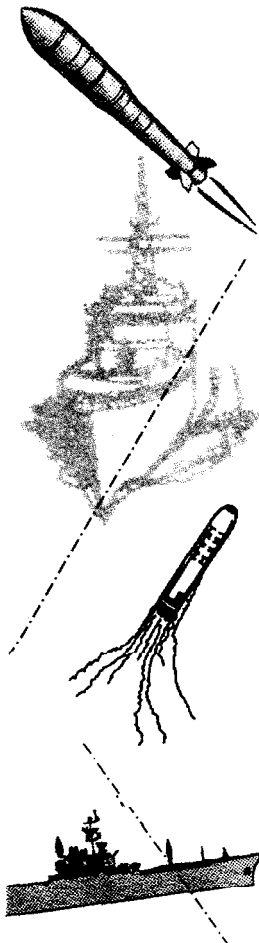U to surface or submerge a sub.
N to cycle to next ship, regardless of ship's status.
T to bring up toggle menu.
S to stop ship.
A / Z to anchor or unanchor a ship.

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F3 to see a random "movie".
F2 to bring up the city info list.
O for battle information menu.
G to toggle the **goto** orders of the current ship.
B to bring up the build menu.
V, **Alt_S** to save the game.
R to randomly displace a flagship with displacement ability.
menu, or top menu.

ship cost table
Combat Chart Table-see attached sheets

Startup Options
To use these commands, type GFLEET **XXX(XXX** are the letters that you want to use). An example: If you wanted to use the game with No Music, No Sound, In VGA mode and without any cover screens your would type "GFLEET MSCV".
M   Turns off music. (saves lots of conventional memory 40K)
S   Turns off Digitized sound. **(saves** some more conventional memory 29K)
P   Does not protect sound during palette animation.
X   Bypasses the yes-no question when exiting the program.
C   Bypasses the cover screens at start up.
V   VGA modo
W   Saves lots of expanded memory in VGA mode only. It does slow down the display.
B   Doesn't load larger ship pictures. (saves lots of expanded memory 260K)
A   To turn off all palette animation.
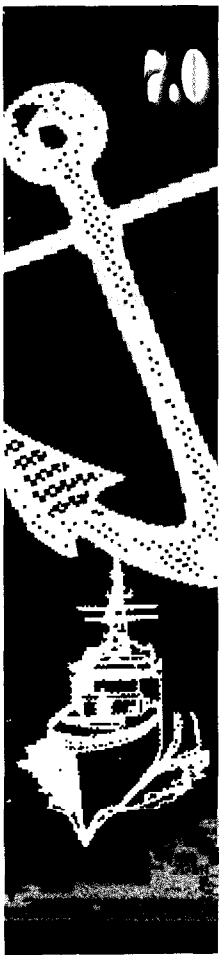**D**   To use direct calls for palette changes. (use if problems with palette animation)
R   To turn on retrace checking. (use if problems with palette animation)
7   Allows only maps up to 70 hexes in width to be used. (saves conventional memory **25K)**
6   Max map witdth 60 hexes. (saves more conventional memory 50K tot)
5   Max map witdth 50 hexes. (saves lots conventional **memory** 75K tot)

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7.0 Hints and Tips

Tips from Bruce Williams **Z**:

As the creator and designer of The Grandest Fleet, my style of playing may be different and maybe not as good as some of you fine strategists out there. I prefer,usually, the big punch in one area with **70-80%** of my initial fleet. If my opponent can statically defend this and spread his forces into 3 to 5 mini-fleets, I probably will lose. I like building convoys in as many cities as possible at the beginning of the game. This will help them defensively and get me more tech and resources later in the game. Usually, I choose cities with the highest point values at the start of the game and eventually bribe or capture cities with ports and airfields. Most of my opponents go immediately for the the towns with ports and airfields. I usually work with one type of supership per game. They all are significant in one way or another. I have seen many games won using a variety of superships in a given game. I prefer building hotels and downtowns over universities. Some of my opponents go right for the universities and do extremely well with them. One game I took a large amount of conventional subs and he built universities and then Early Warning Systems and wrecked havoc on my subs, because he could see them easily. My favorite scenarios are Random, Yamamoto, **Bismarck,** Black Sea, **Campaign(escort** ships) and **Mers(nice** and short). Hope you love this game like we do at **Q.Q.P.**

Tips from Steve Cohen:

I found myself playing with different strategies each and every game. I could never pin down the absolutely best one. There is no one way to win The Grandest Fleet and we here have found ourselves challenging each other at all hours of the day and evening. The competition against the computer is astounding, yet against another human could be a whole different story.

-When choosing your initial starting areas, weigh all the factors that should be considered: Proximity to other cities, value of the city, access to your enemy, and of course the location of shipyards and airports.

-**Don't** underestimate your enemy. When entering battle, bring in enough force to take into account the sub lurking just under the surface that can wreak havoc on your advancing fleet.
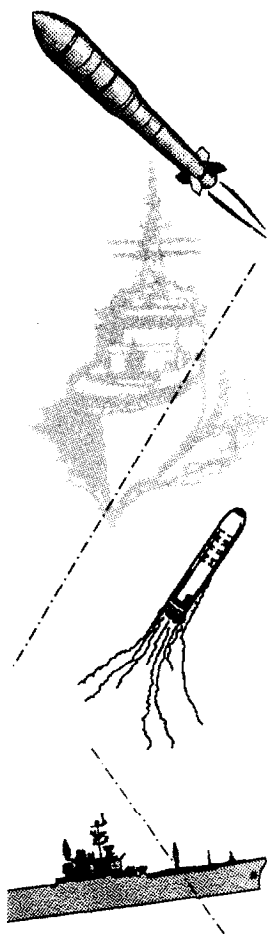
-Protect your battleships with units that can destroy subs. A single sub can send your battleship to the depths of the monitor.

-Try the different lengths of games, they force you to utilize completely different strategies.

-Sneaking a single destroyer behind enemy lines is a great tactic.

-Developing towns can be as much of a benefit as taking over a town. This will allow you to construct the Super Ships. Each of which has amazing advantages.

-Don't ignore any city. Even your cities that are well behind enemy lines can be used to produce Tech, Resources, and Cultural points as they develop.

-A well balanced force is paramount in the beginning of the game. You must be able to take on almost any kind of adversary. If you find yourself in a challenge that you think you may not be able to win, a strategic advance to the rear may be in order. Regroup and be prepared for the battle next time.

-Try playing side 2. It is as much fun, with a bit of a twist.

-Once you have taken a town from your adversary, fortify the town, this will help you keep it. Remember that for at least 2 or 3 turns, there are usually a number of enemy ships still in the vicinity of the city.(subs are a specialty)

-If you have a great strategy, let others know about it via the bulletin boards around the world, you may find a wonderful discussion from others about better and more devious ways of conquering an unsuspecting foe,

Credits

Original game design: Bruce Williams Zaccagnino, Thurston Searfoss

Computer Graphics Coordinator: Tim R. Cuccolo

Package Illustration: Gary Stevens

Manual Design: Lerner Design Group

Printing: Parker Printing

Playtest Coordinator: Bruce Williams Zaccagnino

Game Documentation: Mat Olsen

Editing: Steve Cohen, Pete Alexander, Tim Cuccolo

Quality Assurance: Steve Cohen

Technical Support: Steve Cohen, Ken Norris

Game Testers: Bruce Lull, Ken Norris, Henry Sakos, Jon Zaccagnino, Jack Early, Andy Visscher, Thurston Searfoss, Jean Zaccagnino, Peter Alexander, and many more...

Thanks to Genus MicroProgramming for extensive support with the SVGA aspects of this game.

Thanks to the Audio Solution and John Ratcliff for support with the various music drivers and digitized sound drivers in the game. Also thanks to the folks at Virtual Reality Labs, Gravis,

Biography

Bruce Williams Zaccagnino

Born sometime within the last century Bruce has been playing and designing games of the "third kind" for a longer time than that, Bruce was designed and created in New Jersey and was also raised there. He even lives there now.(What a great place this New Jersey is).

Attended Rutgers U. and Rider College. Then worked at insignificant jobs and read most of the great literature of the world(in his twenties) in search of the meaning of life. Having (so he thinks) found the meaning of life(art and hard work) Bruce embarked on building the World's Largest Model R.R. It is nearing completion. Annual showings to the public has brought over 80,000 people in attendance. (Proceeds go to local charities.) A quick rundown on size. Takes 81 men to operate. Over 13,000 feet of track. Over 400 switches. It is the size of a football field. 15 foot mountains, Over 400 bridges, some of which are 17 feet long and 6 feet high. The scale is HO.

His love of games is no less than model railroading. A game designer from way back, his introduction to computer games in 1985 coupled with the latest improvements in graphics and interface in the last few years sparked his enthusiasm to port some of his ideas to the computer medium. Thus the creation of The Lost Admiral, The Perfect General, and Conquered Kingdoms.

Bruce is also a concert musician. He performs on the theater pipe organ. He has several recordings that he has successfully sold around the country He is the owner of an installed 5 manual, 39 rank theater pipe organ where he does most of his recordings.

Jean, Bruce's wife is convinced that each night, while he is sleeping, martians are communicating new thoughts and ideas for the R.R., his music and games. Bruce vehemently denies this!!

Well, if you are still reading this long-winded. story,, Bruce Williams is still living in N.J., practicing the organ for upcoming recordings, working on the model railroad, and designing and publishing quality computer games.

Thurston **Searfoss**

Born July 26th. 1964. Found to be hard of hearing at age three, nearly placed in a school system for the deaf. Luckily Thurston was able to survive in "Mainstream" school systems and quickly grew up with a great love of astronomy and war games.

However, living in the boondocks of Pownal, Maine made for a dearth of wargaming opponents. Soon Thurston turned to computers as a possible solution for this continual lack of opponents. Starting with the school's **clunky** punch tape machine, later a TRS-80, and finally an IBM his interest in computers soon crowded out his star gazing for late night activities

The time to get serious about life and enter college rolled around in 1983. After spending two and a half years at MIT, Thurston emerged finally from USM in 1990 with a degree in computer science. College life was tough, but not a total loss.

As a side line, Thurston does a lot of fancy cooking, and has studied martial arts for many years. Hopefully will undergo a 2nd degree black belt test some time this year. Still an eligible bachelor, Thurston is still looking forward to many more adventures in life.

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