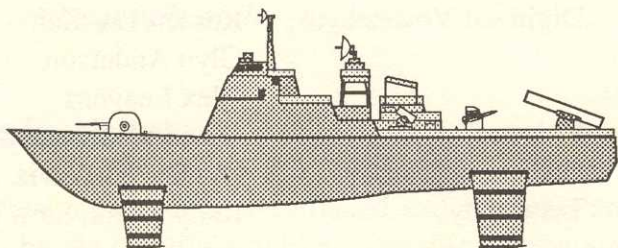


OCEAN RANGER™



CAPTAIN'S MANUAL

Document Classification:

TOP SECRET

ACTIVISION®

OCEAN RANGER

Copyright 1988 Activision
Keyboard overlay for C64/C128

"S" key Stop/Pause simulation
"F" key Open/Reserve fuel tank
"A" key Accelerated time mode on/off

OCEAN RANGER

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Keyboard Overlay for C64/C128



76MM
Cannon
1

Sea
Sparrow
2

Harpoon
Missile
3

Depth
Charge
4

CHAFF
5

ECM
6

Drop/Hoist
Anchor
8

Maintenance
Crews
0

Damage
Report
+

Mast
Camera
-

Area
CHART
£

Tactical
CHART
clr

CHART
Coordinates
del

VIEWS Portholes/Bridge



OCEAN RANGER

For C128: Cut on dotted line



F1 BOW

F3 PORT

F5 STARBOARD

F7 STERN

BRIDGE
return

Monitor Channels
0 Sector CHART
1 TADS IDENT
2 Mast Camera
3 Weapons Status
4 Hits Log
5 Missions Report
6 RADAR

NEXT TADS TARGET
space bar

Monitor
ONE
crsr ↓

Monitor
TWO
crsr ↔



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SECTION 1

INTRODUCTION

1.1 GENERAL

The Ocean Ranger is the first of a new class of frigate-sized foilborne missile ships. Designed for maximum firepower and extremely high speeds, the Ocean Ranger is capable of simultaneously tracking, engaging, and destroying numerous dissimilar targets. Threats can be effectively engaged on the sea surface, undersea, and in the air with the onboard automatic guidance system.

The most modern Electronic Counter Measures (ECM) equipment is carried to jam enemy tracking systems throughout the entire frequency range. This includes pulse Doppler, phased array, and all known "look-down-shoot-down" technologies. The ECM methods are under automatic computer control, and include techniques as sophisticated as projecting multiple false images and creating electronic "blind" spots, to those as simple as activating chaff dispensers to confuse close-in heat seeking missiles.

Command, Control, Communications, and Intelligence (C³I) is all coordinated and controlled by highly advanced digital computer displays that present the commanding officer with instant tactical information concerning displacement, size, and strength of enemy forces. Informa-

tion regarding the ship's internal systems are integrated into these displays to produce the fastest and most comprehensive combat evaluation system possible.

The Ocean Ranger has up to five times the armament capacity, is 40% faster, and has ten times the displacement of first-generation foilborne missile ships. Efficient ultra high bypass turbine engines provide a "turbo boost" for sustained operations at speeds of up to 55 nautical miles per hour (63 statute miles per hour).

1.2 COMPUTER INTERFACE

Joysticks are required for the Commodore® 64™ and Commodore 128™ versions of this program. This is because the operation of controls is through a "point-and-click" interface: the cursor is moved to a desired button or icon, then the "Fire" key is pressed to activate it. A fold-out keyboard overlay is also shipped with this manual to use as a template for your computer keyboard. Before shoving off with Ocean Ranger, make a backup playing copy of the program, then use that copy every time a new mission is begun.

Commodore 64

Making a Backup Disk

1. Plug a joystick into port 2.
2. Turn on your computer and disk drive.
3. Insert your *Ocean Ranger* disk back side up into your disk drive (with the label side down).
4. Type **LOAD "*" ,8,1** and press RETURN. After a short wait additional instructions will appear.
5. Follow the instructions on the screen to create a copy of the program to a backup disk.
6. Use this copy disk every time you use Ocean Ranger.

Loading Ocean Ranger

1. Plug a joystick into port 2.
2. Turn on your computer and disk drive.
3. Insert your copy disk into your disk drive, with side 1 (the label side) up.
4. Type **LOAD "*" ,8,1** and press RETURN. After a short wait the title screen will appear.
5. Enter the correct security code when prompted. The security codes are found on the bottom of the pages of this manual.
6. When asked to insert the game disk, insert your backup copy and press RETURN.

Commodore 128

Making A Backup Disk

1. Plug a joystick into port 2.
2. Turn on your disk drive.
3. Insert your *Ocean Ranger* disk back side up into your disk drive (with the label side down).
4. Turn on your computer. After a short wait additional instructions will appear.
5. Follow the instructions on the screen to create a copy of the program to a backup disk.
6. Use this disk every time you use *Ocean Ranger*. Do not write-protect this disk.

Loading Ocean Ranger

1. Plug a joystick into port 2.
2. Turn on your disk drive.
3. Insert your copy disk into your disk drive, with side 1 (the label side) up.
4. Turn on your computer. After a short wait the title screen will appear.
5. Enter the correct security code when prompted. The security codes are found in Section 2 of this manual.
6. When asked to insert the game disk, insert your backup copy and press RETURN.

SECTION 2

MISSION PREPARATION

2.1 MISSION ENCRYPTION PROCEDURES

After the startup screen, the first display shown to commanding officers is the Code Access Screen (See Figure 2-1). Enter the correct access code, as found along the bottom part of the odd-numbered pages of this manual, then press the RETURN key. Follow the instructions to gain access to the Personnel Records screen.

2.2 ADMINISTRATION DEPARTMENT: PERSONNEL DOCKET

The screen called "Ocean Ranger Personnel Docket" contains the following information:

- Officer's Name
- Duty Assignment
- Theater of Operation
- Medals/Service Summary

See Figure 2-2 for an illustration of the Personnel Docket display. Use the Personnel Docket to gain access to service records of fellow officers as well as to review pertinent personal records.

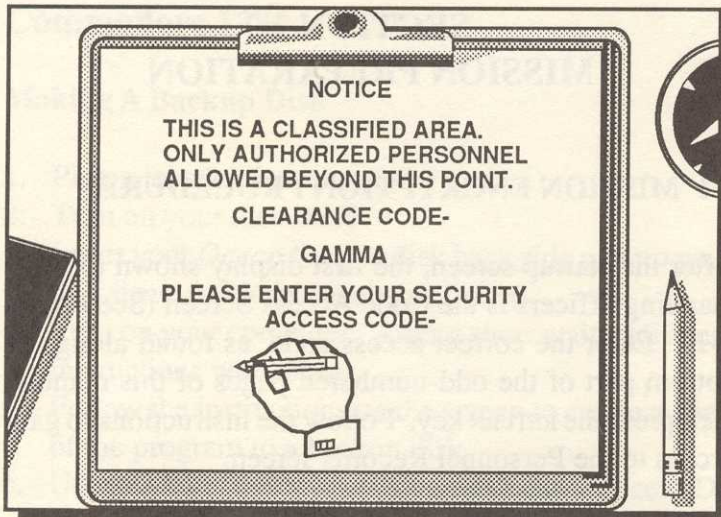


Figure 2-1. Code Access Screen

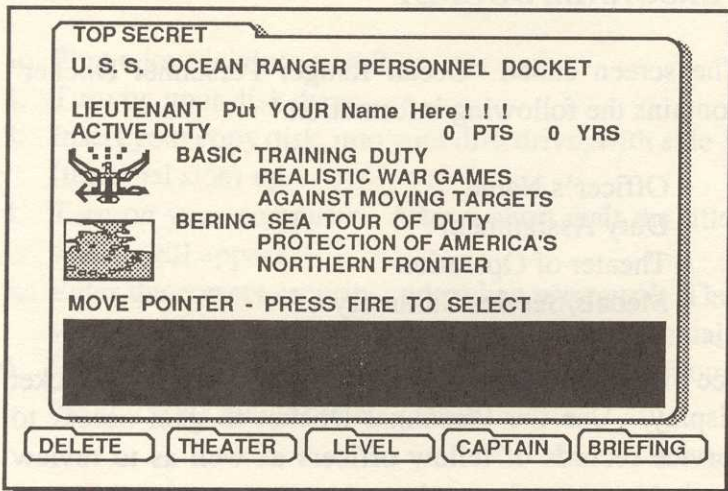


Figure 2-2. Personnel Docket Display

2.3 USING THE PERSONNEL DOCKET

A current "Active Duty" officer status record must be entered into the Personnel Docket before proceeding with a mission. The *active duty* records of captains from any previously saved encounters must be chosen *before* a mission can begin.

2.3.1 Enter a New Name

To enter a new name into the Personnel Docket, perform the following steps:

- 1) Move the cursor to the "Captain" icon and press it once to activate it.
- 2) Cycle through the existing Captain's files by pressing the FIRE button on your joystick.
- 3) The files of all personnel will be displayed as the FIRE button is pressed. Stop on the file of an officer that has been either killed in action or retired to a desk to delete it from the records and make room for new active duty records.
- 4) Press the "Delete" icon two times: once to select the function, and again to confirm the order.
- 5) Enter the new commanding officer's name at the blinking cursor, then press the RETURN key.
- 6) The record of the new commanding officer is now entered into the Personnel Docket.
- 7) To restore the original file contents, press the FIRE button once instead of the RETURN key.

2.3.2 Selecting an Assignment

New duty assignments and theaters of operations can be chosen from the Personnel Docket before proceeding with a mission. To select either duty assignments or theaters, perform the following steps:

- 1) Move the cursor to the appropriate theater or level icon and press it once to activate it.
- 2) Cycle through the assignments or theaters available by pressing the FIRE button.
- 3) A small picture and text will describe each item.
- 4) The assignment or theater is chosen (and will remain on the screen) when another icon is pressed.

2.3.3 Assignment Details

The four kinds of duty assignments are grouped by level of difficulty. They are as follows:

- Basic Training - The easiest level. Realistic war games are played using the Ocean Ranger's combat computer against a minimum number of hostile targets.
- Regular Forces Duty - Actually command the ship into hostile areas.
- CIA Duty - Command a covert strike against an enemy for the Central Intelligence Agency.
- NSC Duty - The most difficult level. Perform a covert stealth operation mission deep into heavily fortified enemy territory for the National Security Council.

As with duty assignments, the four theaters of operation are grouped by level of difficulty. They are as follows:

- Bering Sea - The easiest level. Defend the Alaskan coast against intrusion.
- Southeast Asia - Travel through delta regions to destroy targets.
- Central America - Join with the Drug Enforcement Administration to help crack down on power-crazed military dictatorships and vicious drug smugglers.
- Persian Gulf - The most dangerous level. Defend the US Sixth fleet against the most fanatical mariners in modern history.

2.3.4 Viewing Service Records

View the service records of other officers by examining their medals and ribbons. Simply move the cursor to the desired medal and press the FIRE button. A short description of the medal or ribbon selected will be displayed. A beginning officer starts out with the rank of Lieutenant. Successful missions are rewarded by medals and promotions. Try to reach the rank of Admiral before being retired to a desk job after twenty years of service.

2.4 BRIEFING PROTOCOL

When the desired theater and level have been selected, press the "Briefing" icon in the Personnel Docket display to activate the briefing mode. Press the "Briefing" icon again to enter a top secret mission briefing. Use the "Next" and "Previous" icons to control a slide transparency briefing. During this briefing, the home port location is shown with an "H" on maps, the primary objective is shown with a "P", and the secondary objective is shown with an "S". The Administration Department can also be re-examined with the "Admin" icon. Any time during the briefing, press the "Stores →" icon to proceed to the Ocean Ranger dock and supervise the provisioning of the ship. To change the mission, select the "Abort" icon and use the "Next/Previous" function to view the new mission.

2.5 SHIP'S STORES AND PROVISIONING

It is the responsibility of the commanding officer of the Ocean Ranger to provision the ship in the most appropriate manner for the mission to be accomplished. This usually involves the removal or addition of weapons and fuel. The Ocean Ranger has a maximum weight of 3717.6 tons (7,435,200 lbs.). The Ships Stores Menu, shown in Figure 2-3, allows for provisioning the Ocean Ranger.

Use the “+” and “-” controls to add to or subtract from weapons and fuel stores. The bottom right-hand corner of the menu shows the current weight of the ship. The menu automatically limits the weight carried to just less than, or equal to, the maximum permissible weight limits of the ship.

When all stores have been loaded, press the “Ship →” icon to proceed to the Ocean Ranger bridge.

OCEAN RANGER SHIPS STORES		
+ -	76MM CANNON ROUNDS	QTY: 0100
+ -	SEA SPARROW MISSILES	QTY: 0075
+ -	HARPOON MISSILES	QTY: 0050
+ -	DEPTH CHARGES	QTY: 0010
+ -	CHAFF	QTY: 0010
+ -	MAIN FUEL TANKS	QTY: 008000
MAX WEIGHT: 7435200		CUR WEIGHT : 7405500

Figure 2-3. Ship's Stores Screen

SECTION 3

C³I CONTROLS AND DISPLAYS

3.1 MANEUVERING AND FIRE CONTROL

The bridge of the Ocean Ranger is the place where the captain spends the majority of time on duty. See Figure 3-1 for an illustration of the main view of the bridge. The ship is maneuvered using a joystick. Once selected, weapons are fired using the FIRE button.

3.1.1 Helm Controls

The helm is controlled by using a joystick. See Figure 3-2 for an illustration of the joystick operation. The speed is increased by pushing the joystick forward, and it is decreased by pulling the joystick back. At 28 knots, the ship will automatically lift out of the water onto its hydrofoils. At 35 knots, the turbo booster engages for sustained high speeds of up to 55 knots.

Moving the joystick to the left steers the ship's course to port, while moving it to the right steers the course to starboard. Monitor the compass indicator at the top left corner of the bridge console for the current heading.

NOTE

Release the joystick before pressing the FIRE button or any keyboard keys.

Use the "Drop Anchor" key to lower or hoist the anchor. This action automatically shuts down the engine ... a good thing to do in home port. Accelerating automatically raises the anchor.

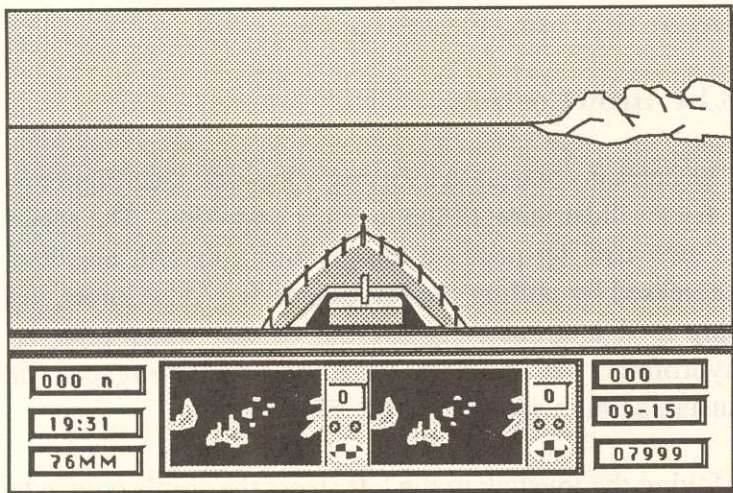


Figure 3-1. Bridge Main View

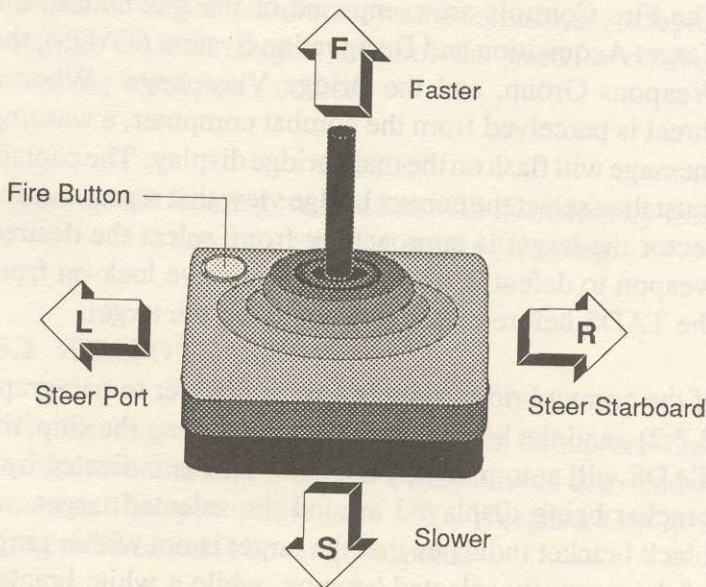


Figure 3-2. Joystick Operation

Use the "Auxiliary Fuel" key to open the auxiliary fuel tank if all fuel is spent during a mission. This allows for an extra 1000 gallons of diesel fuel. The optimal fuel consumption is at 28-34 knots.

The Fire Controls are comprised of the FIRE button, the Target Acquisition and Designation System (TADS), the Weapons Group, and the Bridge View keys. When a threat is perceived from the combat computer, a warning message will flash on the main bridge display. The captain must then select the correct bridge view that represents the sector the target is approaching from, select the desired weapon to defeat it, and acquire a positive lock-on from the TADS before effectively engaging the target.

If the correct bridge view is selected (Refer to paragraph 3.3.2) , and the hostile target is approaching the ship, the TADS will automatically engage. This is indicated by a bracket being displayed around the selected target. A black bracket indicates that the target is not within range of the currently selected weapon, while a white bracket indicates that it is within range.

If more than one target is in view, the TADS will progress to each one when the SPACE bar is pressed. If the current target is destroyed, or passes out of view, the TADS will automatically bracket the next target within the view selected. If a target passes from view, and there are no other targets, the TADS will remain locked onto that target, regardless of which bridge view was selected.

Pressing the FIRE button while a target is bracketed in white

assures that the target selected will be destroyed. This “fire-and-forget” feature allows the commander to rapidly engage multiple targets without the need to continue tracking a weapon’s course.

NOTE

A weapon’s homing mechanism will occasionally malfunction as a result of enemy jamming.

3.2 WEAPONS GROUP

All offensive weapons in the Weapons Group are fired using the FIRE button. Defensive weapons are activated by pressing the appropriate key. The Weapons Group is comprised of the following weapons:

Offensive Weapons

- 76 mm Cannon - Useful against magnetic mines, since they do not possess a heat signature that missiles can lock onto. The cannon can also be used as a secondary defense against enemy aircraft and vessels that are closer than the minimum range of the ship’s missile defenses.
- Sea Sparrow Missiles - Used for surface-to-air defense against enemy aircraft. It consists of a single optical sight coupled with a CW Doppler and a

digital computer.

- Harpoon Missiles - An all-weather surface-to-surface missile system which counters the threat of enemy ships armed with antiship missiles. The missile's range is in excess of 50 miles, with a radar terminal guidance system (active-homing). The missile is also capable of mid-course corrections from the Ocean Ranger's combat computers.
- Depth Charges - Solid fuel, stand-off weapons which destroy submarines at intermediate ranges.

Defensive Weapons

- Chaff - Fires aluminum and mylar strips into the air, temporarily confusing enemy infrared-targeted weapons. Pressing the "Chaff" key launches one chaff rocket. The border of the bridge screen displayed will turn green while chaff protection is active.
- Electronic Counter Measures (ECM) - Jams enemy radars and other sensing devices. Pressing the "ECM" key toggles the ECM on or off. If radar lock-on is detected from a hostile vessel (indicated by the bridge screen border turning red), the enemy radar will be jammed if ECM is selected.

CAUTION

The ECM should only be used during combat situations for jamming purposes. Otherwise, the powerful electromagnetic pulses produced can serve as a homing beacon to alert an enemy of the ship's location. The bridge screen border will also turn red if ECM is on with no hostile radar lock-on detected.

3.2.1 Selecting Weapons

Each defensive and offensive weapon is selected by pressing the key assigned to it. The weapons are assigned to the following number keys for quick access:

- 1 - 76mm Cannon
- 2 - Sea Sparrow Missile
- 3 - Harpoon Missile
- 4 - Depth Charge
- 5 - Chaff
- 6 - ECM

3.3 DISPLAY GROUP

Various displays provide such information as instant reports on the status of weapon systems, damage, and position relative to other vessels and objects. These displays are accessed through keys on the keyboard.

3.3.1 Bridge Display Console

The Bridge Display Console is presented at the bottom half of most navigation-related screens. Figure 3-3 shows details of the Bridge Display Console. On the left side of the console, top to bottom, is the current heading (See Figure 3-4 for an illustration), the military time, and the currently selected weapon. On the right side of the console, top to bottom, is the ship's speed, current X-Y chart coordinate position, and fuel remaining. Messages from the ship's main computer and from the crew are displayed in a small dialog line at the top part of the console. In the lower center of the console are two small monitors.

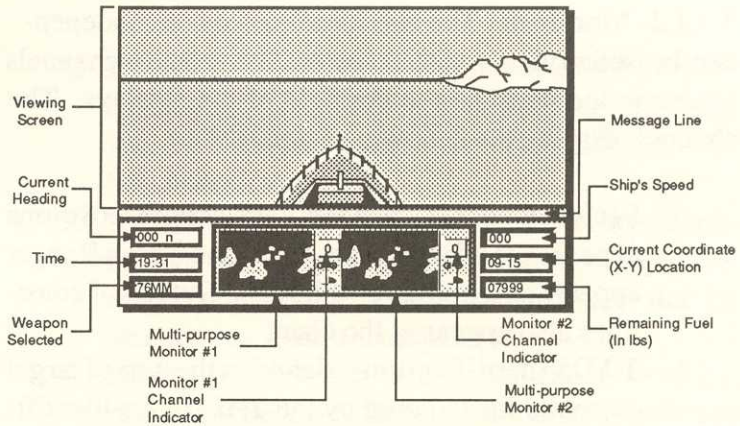


Figure 3-3. Bridge Display Controls

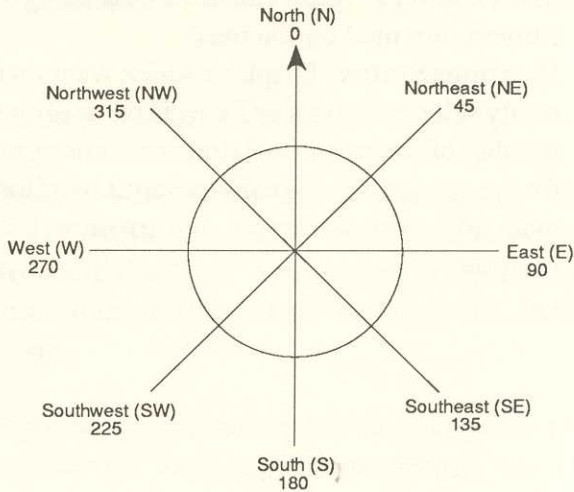


Figure 3-4. Headings

3.3.1.1 Monitors. The two monitors may be independently used to view various reports. The monitor channels appear in the small box to the right of the displays. The channels display the following information:

- 0: Sector Chart** - Last reported enemy positions appear as solid white dots, while the Ocean Ranger appears as a blinking white dot. Details of coastlines also appear in the chart.
- 1: TADS Identification** - Identifies the type of target currently locked onto by the TADS. An identification code, such as "AA" is attached to the target to distinguish it from other targets. An arrow next to the target number indicates the direction of the attacking target.
- 2: Mast Camera** - Shows an infrared display of a TV camera mounted on the mast.
- 3: Weapons Status** - Displays which weapon is currently selected, whether ECM is on or off, and the number of weapons available or rounds remaining for the cannon. The Weapons Status monitor automatically cycles through information for each weapon.

- 4: **Hits Log** - Displays the number of kills during the current mission. Kills are grouped by type: "J" for jets, "D" for destroyers, "M" for mines, and "S" for submarines.
- 5: **Mission Report** - Summarizes the chart coordinate locations of the home port, primary objective, and secondary objective. A dash indicates that the mission has been accomplished.
- 6: **Radar** - Shows the location of enemy activity, relative to the ship. Radar is automatically linked to the TADS, regardless of whether the channel is displayed. A light blue dot indicates multiple enemy targets in the same relative position, while a white dot indicates that only a single target is detected.

3.3.2 Bridge Views

The view from the bridge can be changed by using the Bridge View keys. The "Bow" key causes the bridge view to be forward, the "Port" key views left, the "Starboard" key views right, and the "Stern" key views aft, to the back of the ship.

It is important to remember that these keys are not only used to view the various positions desired, but are also necessary for proper target tracking. The proper view must be selected *before* a weapon can be effectively discharged against a target in a sector.

3.4 AUTOMATED CREW CONTROL

Crew members are given their orders electronically by remote sensing. Because the Ocean Ranger is so highly automated, instant access to the location of all crew is obtained through the main computer. Crew members can be assigned to different parts of the ship by using the "Maintenance Crew" key.

3.4.1 Maintenance Reports

Press the "Maintenance Crew" key to display the Maintenance Report. Figure 3-5 shows an illustration of the Maintenance Report screen. The numbers indicate how much time it will take to repair any damage to a major ship's system. One man is assigned to each station and two men remain in the Galley at the start of each mission. Crews can be assigned to the components by moving the cursor to a crew member and selecting him by pressing and holding the FIRE button, moving him to the desired component, then releasing him by releasing the FIRE button once more. No more than three members can be in a compartment at any one time. It is advisable to assign the crew to their positions before shoving off and getting under way.

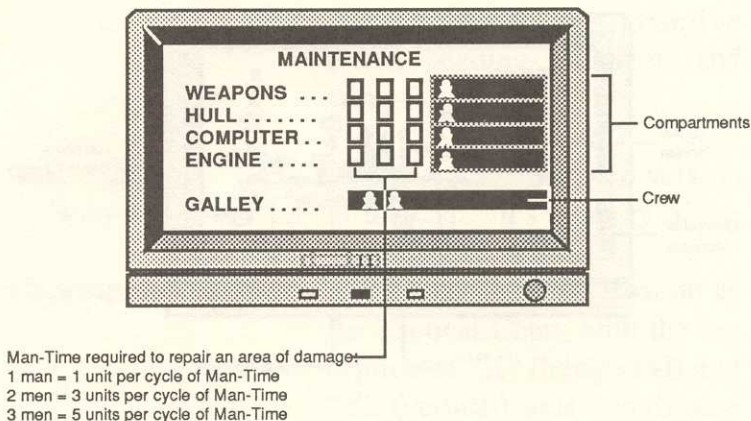
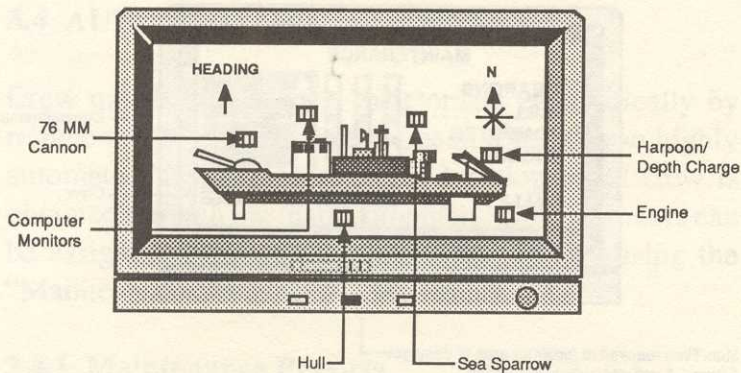


Figure 3-5. Maintenance Report Screen

crew to their positions before shoving off and getting under way.

3.4.2 Damage Report

Press the “Damage Report” key to display the damage report. This shows a color-coded summary of damage taken to various weapons, computer, hull, and engine equipment. Green indicates a functional condition, yellow indicates moderate damage, and red indicates heavy damage. See Figure 3-6 for an illustration of the Damage Report screen.



LEGEND	
Green	Operational
Yellow	Minor Damage
Red	Major Damage

Figure 3-6. Damage Report Screen

3.5 NAVIGATION AIDS

Several charts are available for navigation purposes. They are viewed by pressing the key associated with them, as found in the "Computer Interface Supplement" and on the keyboard template. The charts are described below:

- Tactical Chart** - Displays a full screen chart showing land areas, ship's position (indicated by a blinking white dot), last known enemy positions (black dots), the home base ("H"), primary objective

("P"), secondary objective ("S"), heading indicator, and compass rose.

- Area Chart** - Displays a small screen version in the Captain's quarters of the larger Tactical Chart.
- Coordinate Chart** - Shows the same information as the Tactical Chart, with the exception of "X" (horizontal) and "Y" (vertical) axis coordinates along the top and right sides of the chart. Figure 3-7 is an illustration of the Coordinate Chart. This screen has an additional feature of allowing for accelerated time. When viewing this screen, the "Accelerate Time" key (the "A" key) can be pressed to speed up the simulation. Normal mode is restored under the following conditions:
- When the "Accelerate Time" key is pressed a second time.
 - When another display is selected.
 - When an enemy is in the vicinity.
 - When entering the Home Base.
 - When fuel is too low.

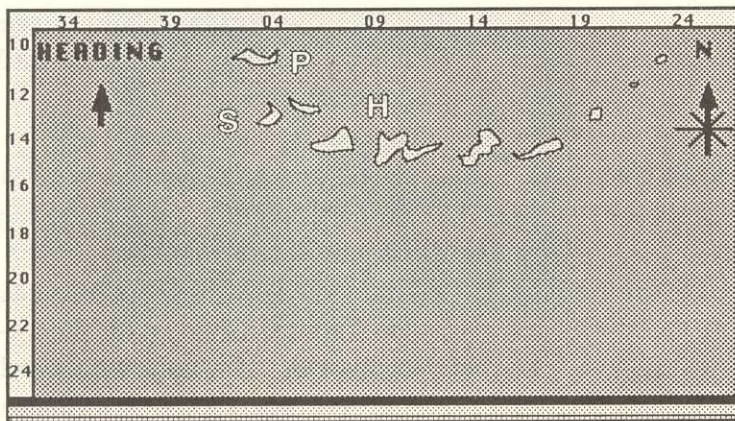


Figure 3-7. Coordinate Chart

SECTION 4

MISSION PROFILES

4.1 OCEAN RANGER SPECIFICATIONS

The Ocean Ranger is a turbofanjet/diesel powered hydrofoil (light) frigate-class combatant ship. Figure 4-1 shows the general arrangement of the Ocean Ranger and the placement of major elements of the ship.

4.2 ENEMY THREAT EVALUATION

Possible enemy vessels, mines, and aircraft that may pose a threat to Ocean Ranger operations are illustrated and described in this section.

4.3 TACTICS

The Ocean Ranger is capable of extremely high speeds and massive firepower. It is the most heavily armored and armed ship for its displacement in the world. However, the commanding officer must always keep in mind the observation of a famous Russian tactician: "Quantity creates a quality of its own."

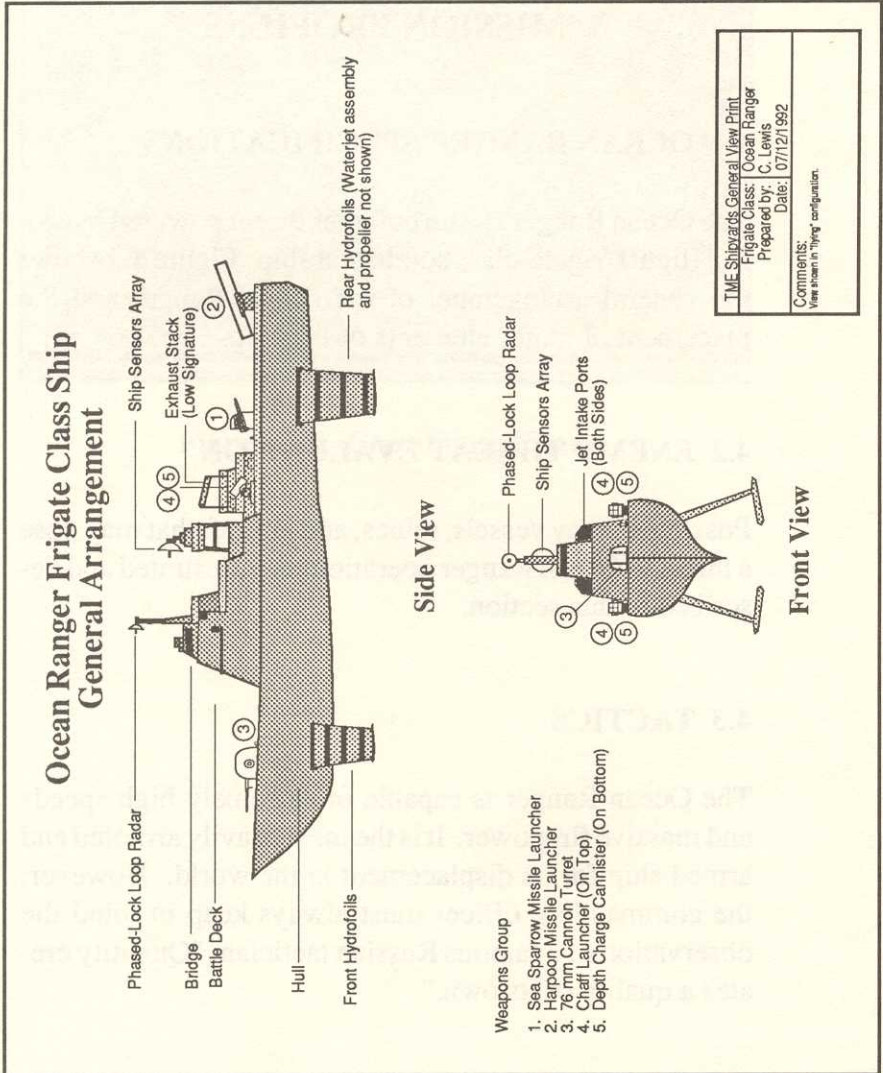


Figure 4-1. Ocean Ranger Specifications

The defenses of any ship can become so saturated that it is vulnerable to damage from repeated attacks. The Ocean Ranger is more than a match for most threats. Even against multiple dissimilar targets, it poses a formidable challenge. However, the effectiveness of the ship's weapons will be lessened by an unsystematic approach to targeting and fire control. The commanding officer must develop techniques that allow for the methodical, effective destruction of targets. Experience dictates which targets are more threatening, which ones can be maneuvered around, and the proper sequence of fire for the best results in any given situation.

Several rules of engagement apply for the Ocean Ranger:

- Assign your Maintenance Crew to their stations before an engagement.
- Speed works to your advantage in most situations. The Ocean Ranger's speed and striking power are her greatest assets. It is useful to vary the speed, from slow to fast, while performing evasive moves. This helps to confound enemy tracking systems.
- Rely on the Targeting Computer and radar displays for multiple target acquisition. It is usually a good idea to call up the Radar in one monitor, and the TADS Ident on the second monitor *before* combat.

- Since the targeting of weapons depends on the sector view being shown, always decide which sector poses the most targets first, then select the sector view. Once this is accomplished, select the correct weapon to match the threat(s) in that sector in a systematic fashion. In other words, try to respond to categories of targets. Destroy all targets in a weapon/threat category with the "Next TADS Target" (Space Bar), then immediately select another weapon for targets in the sector being defended.
- Don't wait for the Ocean Ranger's "fire-and-forget" missiles to hit their targets; as soon as one is launched, immediately select the next TADS target to attack.
- When the combat situation becomes confusing, launch chaff rockets to gain valuable time.
- While in a non-combat area, it is advisable to drop anchor and effect repairs in the maintenance mode before engaging the enemy.
- Choose the course for the mission carefully to avoid known enemy locations and to conserve on fuel consumption.
- Captains that are Missing In Action may be rescued by completing three CIA missions in a row (primary and secondary objectives). POWs may be rescued by completing three NSC missions in a row.

- Selection of a more difficult assignment (level, theater) will result in more points being awarded upon completion.
- For maximum scores, complete your mission in the shortest time without refueling.
- Observe the cardinal rule of military tactics: “economy of force.” If the enemy positions are consolidated, proceed with caution. However, when the enemy positions are scattered, punch through their lines at high speed and retain the element of surprise.
- The Ocean Ranger does not have a “reverse” throttle control, but it can change course very quickly. When an enemy attacks with overwhelming forces, reverse course as fast as possible back to base ... and try to stay alive to fight another day.

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