

Clear for Action

GAME INSTRUCTIONS



FOR:

Atari® Home Computers, 48K

TRS-80® Models I/III/4, 48K

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GAME INSTRUCTIONS

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I. INTRODUCTION

Clear For Action is a simulation of 18th and early 19th century naval conflict for one to eight players. In the **solitaire** option, you are pitted against the computer while the **multi-player** option allows up to eight players to command individual ships. You maneuver your ship(s) in an attempt to defeat your opponent(s) through a combination of fire and boarding actions. During the course of the game, you will be faced with the critical command functions of maneuvering a warship under sail, directing fire onto the enemy and optimum employment of the ship's crew.

Clear For Action is designed for flexibility. In addition to the opponent option, it offers players an essentially unlimited number of gaming situations. This flexibility is intended to provide years of enjoyment and learning. You will find **Clear For Action** an easy game to play but difficult to master.

A. GAME EQUIPMENT

- Program Tape or Disk
- Game Instructions
- Captain's Battle Manual

B. GAME SCALE

All distances are given in meters. Each turn represents one minute of time.

C. RULES ORGANIZATION

The rules for **Clear For Action** come in two parts. The **Game Instructions** tell how to play the game. The **Captain's Battle Manual** describes how various aspects of the game are simulated and also provides information for constructing scenarios. The notation [xx] is used in the Game Instructions to refer players to appropriate sections of the **Captain's Battle Manual**. Additionally, the **Game Instructions** are divided into separate sections for each computer, starting with Atari (see index).

Clear For Action can be played after a simple reading of the Game Instructions. Proficiency develops through a combination of experience and understanding of the concepts of naval conflict embodied in the **Captain's Battle Manual**.

II. ATARI INSTRUCTIONS

A. ATARI LOADING INSTRUCTIONS

CASSETTE

There are two separate game programs on the cassette tape. On side one of the tape is the single player game, on side two of the cassette is the multi-player game.

Clear For Action requires the BASIC language. On some Atari computers you will have to insert the BASIC language cartridge before turning on your computer.

1. Plug a joystick into controller port number one.
2. Put the game cassette into the cassette player, with the appropriate side up. Rewind the cassette completely.
3. Turn on your computer and type:
RUN"C:"
and press the **RETURN** key. The computer will beep once.
4. Press the **PLAY** button on the cassette recorder and then

the **RETURN** key on the computer keyboard. The first part of the game program will begin to load. After the first part of the program has loaded the game will begin and prompt you for the general setup of the game. Once the game's parameters have been entered the computer will prompt you to load the second, main, part of the program. Just follow the prompts. **Clear For Action** is a long program and will require a great deal of time to load.

DISK

1. Ensure that BASIC is up on your computer. On some Atari computers you will have to insert the BASIC Language Cartridge into the cartridge slot. In other Atari computer systems the BASIC language is built into the system.
2. Turn on your disk drive.
3. When the busy light goes out on the disk drive insert the game disk into the drive and close the drive door.
4. Turn on the computer. The computer will load and start the game program automatically.

B. JOYSTICK AND FIRE BUTTON

With the exception of Ship Data Entry, all commands are entered from the joystick. The stick is used to select the desired command. Each time a new command is selected a single "beep" is given. The fire button is used to enter a command. Acceptance of a command is acknowledged by a double "beep." If an improper command is selected a "buzz" is given.

Commands are prompted by a message and a box.

PROMPT MESSAGE □

As different commands are selected by the stick, they appear in the command box. When the desired command appears, press the fire button to enter the command.

A ship will only respond to commands from the joystick port designated for that ship during the Ship Data Entry Phase. More than one ship can be controlled from the same joystick.

JOYSTICK COMMANDS

COMMAND	UP	DOWN	LEFT	RIGHT
Answer yes or no	Yes	No	X	X
Numerical Value	Increase	Decrease	X	X
Sailset	Full	Battle	Back	None
Helm	Tack	None	Port	Starboard
Fire at	Rigging	Hull	X	X
Reload	Dismantling Shot	Double Load	Shot	Grape
Crew Location	Tops	Decks	Port Guns	Starboard Guns
Boarding Action	Board	Repel	X	X
Wind Direction	X	X	Counter- clockwise	Clockwise
Continue/New Game	Continue	New Game	X	X

C. THE SOLITAIRE VERSION

The solitaire version is played in essentially the same manner as the multi-player version. In most instances, the computer opponent receives and answers the same prompts that a human opponent would. Exceptions are given below.

Movement Orders: The movement orders for the computer opponent are not prompted or displayed.

Fire or Reload: Since there are only two ships in the solitaire game, the format of the fire sequence and the prompts are somewhat different.

1. Your ship is always shown in white on the position grid and the computer opponent's ship is always shown in black.
2. Fire prompts are given as FIRE(Y/N) rather than indicating the I.D. number of the target ship.
3. Reload prompts are not given for the computer opponent.

Ship Status: You may "see" the status of the computer's ship by answering "Y" to the SHIP STATUS REPORT prompt, but you will not be permitted to see the disposition of the computer opponent's crew.

Game Preliminaries: During the game preliminaries, the conditions for the simulation are set. Enter the wind direction, select desired game options and enter the names of the ships, the characteristics of the ships and the ships' starting positions/courses. This sequence is not repeated during a game turn.

Ungrappling/Unfouling Phase: If preconditions are met, players may release grapples, attempt to ungrapple and attempt to unfoul.

Movement Phase: Players issue helm and sail orders. Ship movement is executed and displayed. If preconditions are met, players may attempt to grapple and ships may become fouled.

Fire Phase: Players designate targets and fire their broadsides. Guns are reloaded.

Boarding Action Phase: If preconditions are met, players may attempt to board and capture their opponent's ship. Fire from the tops is conducted.

Morale Check Phase: The computer automatically checks crew morale. Ships with sufficiently degraded morale due to crew casualties or captured deck sections may strike their colors.

Ship Status Report/Crew Orders: Upon request, the status of each ship is reported. If desired, players issue orders to their crew to man various parts of the ship.

E. PRELIMINARIES

Game Options

After the game loads, the computer will print:

ENTER WIND DIRECTION ☐

Use the joystick (left/right) to select and enter the direction from which the wind is blowing. The computer will then print:

DO YOU WISH TO PLAY ME(Y/N) ☐

Select Y with the joystick for the solitaire option or N for the multi-player option. Depending on your selection, the following prompts will appear.

Solitaire Option

ENTER SKILL LEVEL(1-9) ☐

Use the joystick to select and enter a number between 1 and 9. The higher the number, the more difficult it will be to defeat the computer opponent.

Multi-Player Option

ENTER NUMBER OF SHIPS ☐

Use the joystick to select and enter the number of ships in the scenario. You may select any number of ships between 2 and 8. It is recommended that an inexperienced player command no more than 2 ships.

Scenario Option

WOULD YOU LIKE TO PLAY ONE OF THE SCENARIOS (Y/N)?

Select Y with the keyboard to play one of the programmed scenarios, or N to play one of your own creation. If you want to play a scenario, the following will appear:

ENTER SCENARIO NUMBER (1-12)

The scenario listing begins on page 11 of the **Captain's Battle Manual**. Choose one, entering its number with the keyboard. The program will then ask you to select the stick number for each ship.

Ship Data Entry

All inputs here are from the **keyboard**. After each prompt, type in the required information and press the RETURN key. The computer will print:

SHIP NO. x DATA ENTRY
ENTER SHIP NAME?

Type the name of ship x. You may use up to six characters. The computer will then print:

STANDARD SHIP (Y/N)?

Enter Y if you desire a standard ship listed in Table A-1 of Appendix A of the Captain's Battle Manual. The computer will then print:

ENTER SELECTION (1-56)?

Enter the number corresponding to the ship you have selected from Table A-1. The computer will automatically assign and print the ship characteristics.

If you do not wish to use a standard ship, enter N after STANDARD SHIP(Y/N). Prompts will appear for the entry of the eight ship characteristics from the keyboard. Enter the required data for each characteristic from the Ship Characteristics Entry Sheet, (see Appendix A, **Captain's Battle Manual**)

Position Data

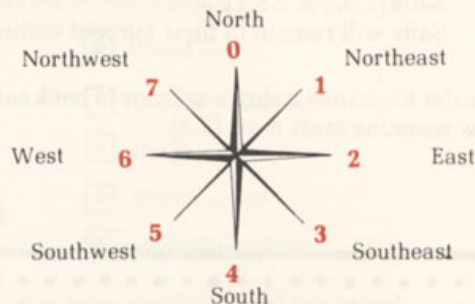
After the ship characteristics have been entered, prompts will appear for the following:

X COORDINATE?
Y COORDINATE
HEADING?
STICK NO.?

Enter the starting X coordinate, Y coordinate and heading (0-7) for the ship. STICK NO. refers to the joystick port (1-4) from which commands for the ship will be given. More than one ship can be commanded from the same joystick port. You may use any number for the coordinates, for instance:

X COORDINATE?—110
Y COORDINATE?—220
HEADING?—3
STICK NO.?—1

Heading



F. UNGRAPPLING/UNFOULING PHASE

The ungrappling/unfouling phase occurs only for ships which are grappled or fouled. Depending on a ship's particular status, prompts will be given to:

RELEASE GRAPPLES ☐
ATTEMPT TO UNGRAPPLE ☐
ATTEMPT TO UNFOUL ☐

Each of these is responded to by a (Y/N) command. Results (SUCCEED/FAIL) are then printed.

RELEASE GRAPPLES means that you are intentionally releasing your grapples from a ship which you previously grappled. Releasing grapples succeeds automatically.

ATTEMPT TO UNGRAPPLE refers to your attempt to remove another ship's grapples. Factors affecting a ship's ability to successfully ungrapple are discussed in Case 3.3 of the Captain's Battle Manual.

ATTEMPT TO UNFOUL refers to your attempt to disentangle your rigging from that of another ship. Refer to Case 3.4 of the Captain's Battle Manual for factors affecting a ship's ability to successfully unfoul.

G. MOVEMENT PHASE

GENERAL—

The movement display shown in Figure 1 covers:

- Movement Orders
- Movement Summary
- Fouling and Grappling

Relative positions of the ships are shown on the position grid located on the left side of the display. Note that these are **approximate** positions dictated by the scale factor. **Clear For Action** uses a variable scale for the distance between points on the position grid depending on the distances between ships. As the ships come closer together, the scale factor decreases to a minimum value of 20 meters.

Movement information for each ship is shown on the right side of the display. All commands are entered from the joystick as prompted in the Command Box.

Movement orders are entered for each eligible ship. When all movement orders are entered, movement is executed and the movement display is updated. If conditions for grappling and/or fouling exist at the end of movement, the Fouling/Grappling Phase is executed.

Movement Orders—

Movement orders may be issued each turn unless the ship is:

- a) Grappled or Fouled, or
- b) Executing a tack, or
- c) Struck

Movement orders consist of SAIL ORDERS and HELM ORDERS. The following SAIL ORDERS may be issued:

- FULL:** All sails are set. Ship will sail at maximum speed [2.1], but Mast damage from fire will be greater [4.4.3].
- BATTLE:** Ship will sail at 75% of maximum speed [2.1], but Mast damage will be less.
- BACK:** Rapidly slows forward motion of ship [2.5.1]. Certain conditions must be met in order to Back Sails [2.3.3 & 2.5.1].
- NONE:** Sails will remain in their current setting.

Note: In order to change a ship's sails, or to back sails, sufficient crew manning must exist [2.3].

The following HELM ORDERS may be issued.

- PORT:** Ship turns 1 point (45 degrees) to the left [2.2].
- STB:** Ship turns 1 point (45 degrees) to the right [2.2].
- TACK:** Ship turns across the wind [2.4]. Certain preconditions must be met before a ship will tack [2.4.1].
- NONE:** Ship will continue on its present heading.

In order for a ship to turn (PORT, STB) certain conditions of manning and speed [2.2.2] must be met. Ships cannot turn into the wind.

Movement Display

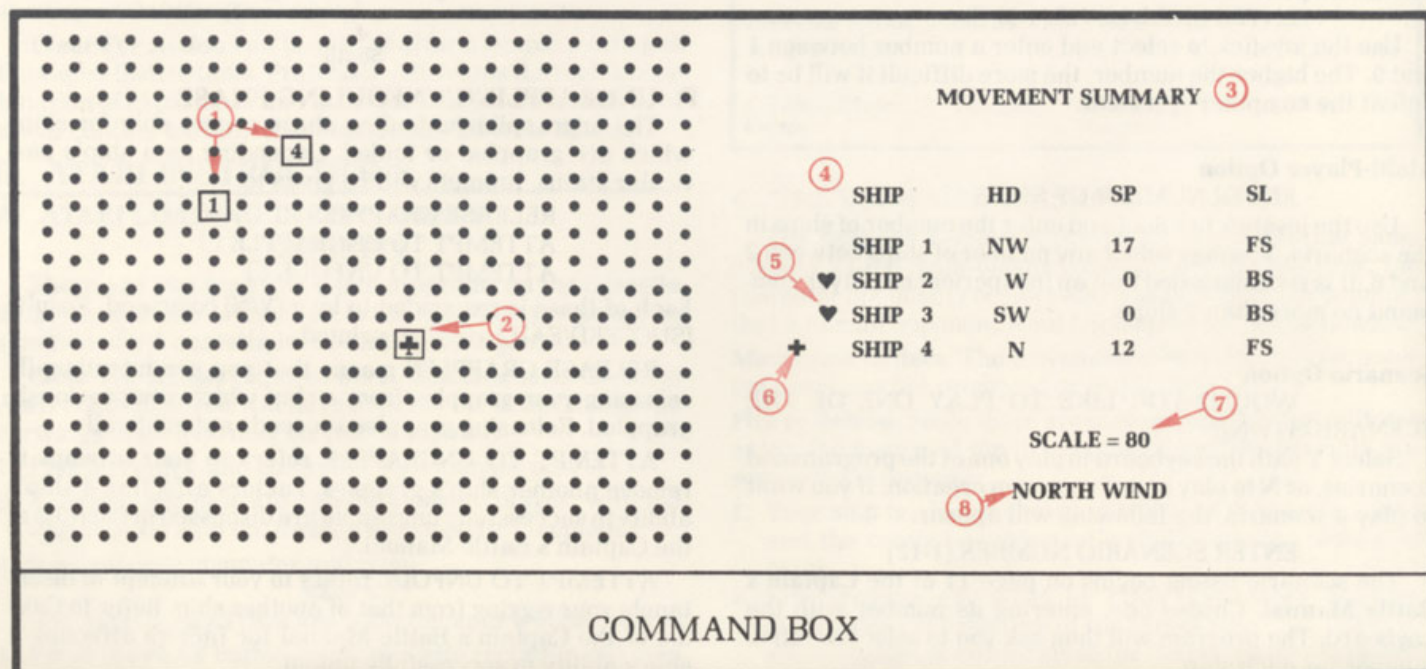
The movement display is shown in Figure 1.

- Relative positions of SHIPS 1 and 4.
- SHIP 2 and SHIP 3 are in the same grid location.  symbol denotes two or more ships in the same grid location.
- During Movement Order Phase this heading reads "MOVEMENT ORDERS".
- SHIP** denotes the ship name. Ships are listed in order of their ship I.D. number.
HD denotes the ship's heading.
SP denotes the ship's speed.
SL denotes the ship's sail setting.
FS = Full Sails
BS = Battle Sails
BK = Back Sails
-  denotes fouled or grappled ship.
-  denotes tacking ship.
- The scale of the position grid. The distance in meters (horizontally & vertically) between points on the position grid. The scale can change during the course of the game depending on distance between ships.
- The direction which the wind is blowing **from**. On the position grid North is always at the top of the screen.

Movement Summary

After all movement orders are entered, the ships move. The position grid is updated to show the new positions of the ships and the Movement Summary is simultaneously updated to show each ship's heading, speed and sailset.

FIGURE 1
MOVEMENT DISPLAY



H. FOULING/GRAPPLING PHASE

If, at the end of movement, ships are sufficiently close (150 meters or less) to foul [3.2] or attempt to grapple [3.1], the fouling/grappling phase is executed. Fouling occurs automatically and probabilistically [3.2.2]. If two ships foul, a message is printed in the command box.

Grappling is optional. Players are prompted in the command box for a Yes(Y) or No(N) answer asking if they wish to grapple another ship. Results of a grappling attempt appear in the command box and the Movement Summary is updated accordingly. See Case 3.1.4 in the Captain's Battle Manual for the probability of successfully grappling.

I. FIRE PHASE

General

The Fire Phase includes the following:

- Fire Orders
- Fire and Damage Allocation
- Gun Reload

The fire display is shown in Figure 2. The relative positions of the ships are shown on the position grid on the left side of the fire display. The position grid is identical to the position grid used in the movement display except that color coded symbols are used to denote the positions of the ships rather than their ship numbers. The right side of the display depicts a close-up view of the firing ship and is used to indicate the reload status of each gun section and the type of shot loaded therein.

The command box at the bottom of the display is used to prompt fire and reload orders, indicate target/firing ship information and display the number of hits sustained by a ship being fired upon.

Although fire is conducted sequentially it is treated as simultaneous fire by the computer. This means that damage from fire is not allocated until all fire has been completed.

The description of FIRE given below is for the **multi-player** version. Exceptions pertaining to the **solitaire** version are discussed under the heading **Solitaire Version** of the rules.

Fire Orders

Fire orders are issued in two parts:

- TARGET SHIP I.D. ☐
- HULL OR RIGGING ☐

The target ship is identified by its number in the answer box following the prompt TARGET SHIP I.D. ☐. Two things occur when the joystick is used to change the number in the box.

1. The position grid is changed to show the target ship.
2. The target ship's name, heading, speed and sailset are displayed beneath the firing ship information on the right side of the command box.

If you **do not** wish to fire, enter 0 (zero) or the I.D. number of your own ship.

After the target ship has been specified, a prompt appears to designate whether you are directing fire at the target ship's HULL or RIGGING [4.4].

If, after fire orders have been issued, the computer calculates that the target ship is outside of the firing ship's arc of fire [4.3], it will print the message "GUNS DON'T BEAR". If this occurs and there are more than two ships in the scenario, you will be given an opportunity to issue fire orders for another target. Additionally, if there are more than 2 ships in the scenario, you will be given an opportunity to fire again (the other broadside).

Fire Display

The Fire Display is shown in Figure 2.

- 1 The position grid. Symbols described below are used to show ships on the position grid.

- (black) Single ship
- (white) Firing ship
- (red) Target ship

- 2 Closeup view of the firing ship
- 3 Run-out gun
- 4 Run-in gun

The number of guns in a gun section which are run-out indicates the extent to which that section's guns are reloaded.

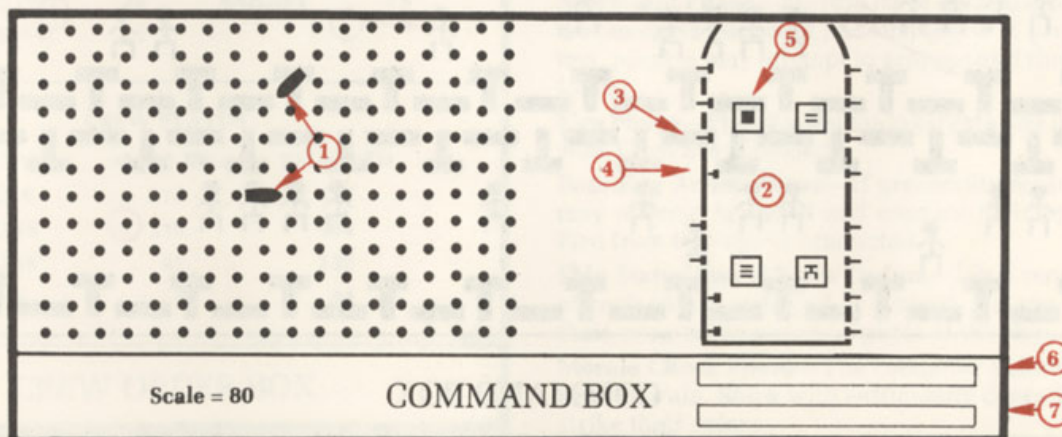
No. guns run-out	Percent Reloaded
1	0-25
2	26-50
3	51-75
4	76-100

- 5 Ammunition chest. The symbol in the ammunition chest denotes the type of ammunition presently loaded in the corresponding section's guns.

- Round shot
- Double round shot
- Grape
- Double grape
- Dismantling shot

- 6 Firing ship name, heading, speed and sailset
- 7 Target ship name, heading, speed and sailset
- 8 The scale of the position grid

FIGURE 2
FIRE DISPLAY



Fire and Damage Allocation

After fire orders are issued, loaded guns [4.6] are fired from the appropriate side (port or starboard) of the ship. After each section fires, its ammunition chest is cleared in preparation for reload. The number of HITS [4.4] recorded on the target ship is displayed in the lower left corner of the command box after each gun section fires. If double shot or double grape [4.2] is being fired each hit will do double damage [4.4].

Damage allocation [4.4] is computed after all ships have fired. Damage allocation consists of converting the HITS recorded during the fire phase to damage to specific parts of the ship and to crew casualties. Damage is displayed in the SHIPS STATUS REPORT.

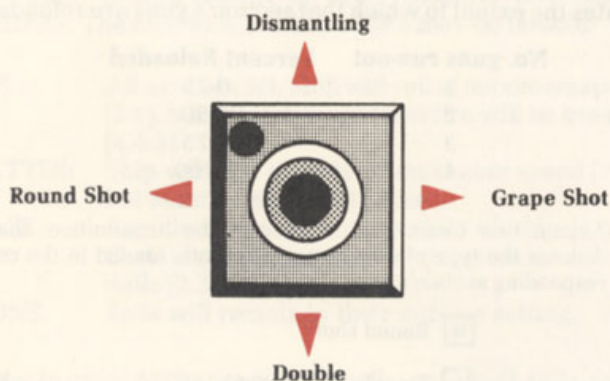
Reload

After a ship has finished firing, it must reload each gun section that fired with one of five types of shot [4.2].

Round shot
Grape shot
Double round shot
Double grape shot
Dismantling shot

A reload prompt appears on the left side of the command box.

If you desire DOUBLE ROUND SHOT or DOUBLE GRAPE SHOT, first specify ROUND SHOT or GRAPE SHOT and then move the joystick to the DOUBLE position.



J. BOARDING ACTION PHASE

General

Boarding Actions occur when opposing ships are grappled or fouled. During the boarding action phase, players order crew assigned to DECKS to either BOARD the enemy ship or REPEL enemy boarders. The boarding action display (Figure 3) depicts the deck area of two opposing ships, the crew from each ship and melee combat between opposing crew sections. Depending on their orders, crew sections will move and engage in melee [6.2]. Boarding actions are usually decisive due to the heavy morale weighting of captured deck sections and the heavy casualties sustained during melee [5.3].

Boarding Action Orders

During the boarding action phase, players order their crews to BOARD [6.2.3] or REPEL [6.2.2]. Crews ordered to BOARD will attack opposing crews and attempt to capture deck sections on the opposing ship. Crews ordered to REPEL will attack opposing crews attempting to board their ship (if any).

Melee occurs between individual opposing crew sections. Melee is discussed under Case 6.2.4 of the Captain's Battle Manual.

Boarding Action Display

The Boarding Action Display is shown in Figure 3.

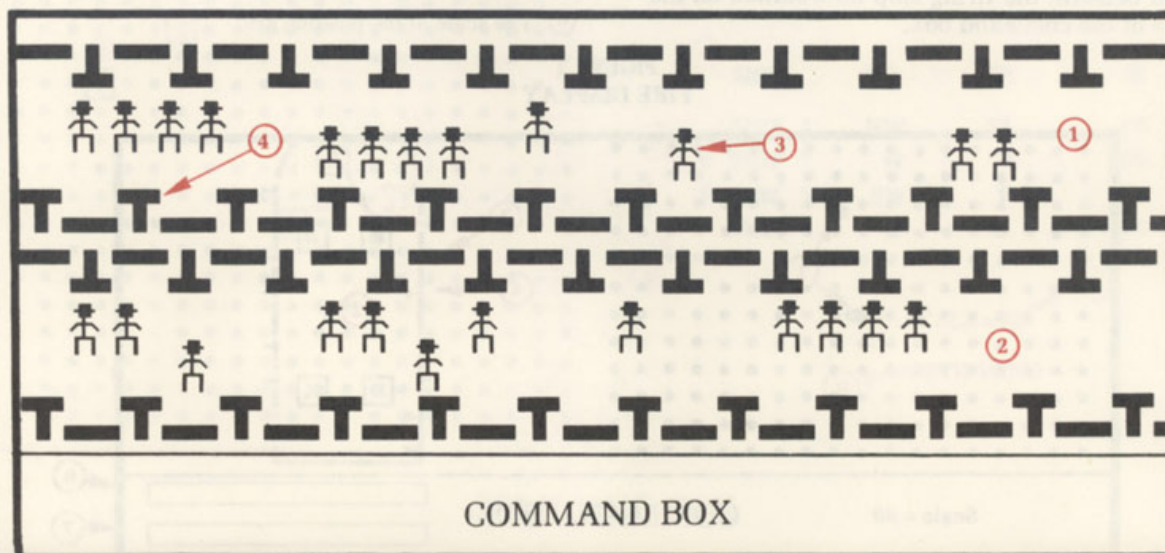
- ① The deck of the **higher I.D. numbered** ship. The higher numbered ship is always displayed at the top of the boarding action display
- ② The deck area of the lower numbered ship
- ③ Crew section representing 5 crewmen. The color of the crew section indicates nationality.
 - Red—Nationality code 1 (British)
 - White—Nationality code 2 (French and Spanish)
 - Blue—Nationality code 3 (American, Dutch, Danish)
 - Black—Indicates crew sections engaged in melee
- ④ Symbol for gun. Strictly decorative

Movement and Melee

After orders are issued, individual crew sections move and engage in melee in accordance with the rules given in Case 6.2 of the Captain's Battle Manual. When two opposing crew sections melee, their color turns to black. Refer to Case 6.2.4 for the possible outcomes of melees and the factors affecting the outcome.

At the end of the boarding action phase, the computer will count the number of captured deck sections on each ship and adjust that ship's morale [5.3] accordingly.

FIGURE 3
BOARDING ACTION DISPLAY



K. SHIP STATUS REPORT AND CREW ORDERS

Ship Status Report

The Ship Status Report is shown in Figure 4. This report is printed when the player answers Yes(Y) to the Status Report Prompt which appears at the top of the screen. The upper portion of the report displays damage to the various parts of the ship, crew morale and movement information.

The Crew Status section indicates the number of crew (MANNING) at each location. The REQUIRED column indicates the number of crew required to fully man each location. Specifically:

DECKS	No. of crew required to fully man the sails [2.3].
P. GUNS & S. GUNS	The number of crew required to fully man the Port and Starboard guns. Note that this number will decrease during the course of the game as damage to the guns is sustained [4.6].
TOPS	The maximum number of crew who can occupy the tops [5.2.3].

CREW ORDERS

Crew orders are used to move a ship's crew from one location to another. Refer to Case 5.1 of the Captain's Battle Manual for the functions performed by crew at various ship locations.

Four prompts are used to issue crew orders.

—CREW ORDERS (Y/N)

If Y is selected, the following prompts will appear.

—LOCATION FROM
—LOCATION TO
—NUMBER OF MEN

Refer to Case 5.2.2 for limitations on the number of crew which can be moved in a turn.

L. VICTORY OR DEFEAT

When one or more ships STRIKE [7.0] in the multi-player version, the following prompt appears:

CONTINUE OR NEW GAME ☐

If you wish to continue the present game select C. If you wish to start a new game, select N.

Since there are only two ships in the solitaire version, the surrender of one ship ends the game automatically. The solitaire version also contains a restart option which is answered by a Y/N prompt.

FIGURE 4
SHIP STATUS REPORT & CREW ORDERS

SHIP A STATUS REPORT (Y/N)			
HULL HITS	240	MORALE	79
CREW CAS.	57	COURSE	NW
P GUNS (%)	13	SPEED	27
S GUNS (%)	26	SAILSET	FS
MASTS (%)	23		

CREW STATUS		
LOCATION	MANNING	REQUIRED
DECKS	117	122
P GUNS	210	204
S GUNS	47	188
TOPS	0	44

CREW ORDER BOX	
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III. TRS-80 INSTRUCTIONS

A. CASSETTE LOADING INSTRUCTIONS

There are two TRS-80 programs on the cassette. On Side one, after the Atari Home Computer version is the single player game. On Side Two, after the Atari version is the multi-player program. Use the **CLOAD** command to load the program.

B. ISSUING ORDERS

Orders or commands are issued from the keyboard. A prompt message appears followed by a "?". The prompt message includes, in parentheses, acceptable commands. To issue an order, simply type the desired command and hit the ENTER key.

If a command which the computer does not recognize is entered or if an **improper order** (e.g. conditions for issuing the order do not exist or the order is not allowed) is entered the message:

IMPROPER ORDER! RE-ENTER

will appear. After a short delay, the prompt will reappear.

C. THE SOLITAIRE VERSION

The solitaire version is played in essentially the same manner as the multi-player version. In most instances, the computer opponent receives the answers the same prompts that a human opponent would. Exceptions are given below.

Movement Orders—The movement orders for the computer opponent are not prompted or displayed.

Fire and Reload—Since there are only two ships in the solitaire game, the format of the fire sequence and the prompts are somewhat different.

1. The only prompt is HULL OR RIGGING (H/R/N). Enter "N" if you do not wish to fire.
2. No prompts are provided for reloading the computer opponent's guns.

Ship Status—You may "see" the status of the computer opponent's ship by answering "Y" to the SHIP STATUS REPORT prompt, but you will not be permitted to see the disposition of the computer opponent's crew.

D. SEQUENCE OF PLAY

Game Preliminaries—During the game preliminaries, the conditions for the simulation are set. Players enter the wind direction, select desired game options and enter the names of the ships, the characteristics of the ships and the ships' starting positions/courses. This sequence is not repeated during a game turn.

Ungrappling/Unfouling Phase—If preconditions are met, players may release grapples, attempt to ungrapple and attempt to unfoul.

Movement Phase—Players issue helm and sail orders. Ship movement is executed and displayed. If preconditions are met, players may attempt to grapple and ships may become fouled.

Fire Phase—Players designate targets and fire their broadside. Guns are reloaded.

Boarding Action Phase—If preconditions are met, players may attempt to board and capture their opponent's ship. Fire from the tops is conducted.

Ship Status Report/Crew Orders—Upon request, the status of each ship is reported. If desired, players issue orders to their crew to man various parts of the ship.

Morale Check Phase—The computer automatically checks crew morale. Ships with sufficiently degraded morale may strike their colors.

Ship Data Entry

The computer will print:

The computer will print:

SHIP NO. X DATA ENTRY

ENTER SHIP NAME?

Type the name of ship **X**. You may use up to six characters. Following the ship's name, prompts will appear for the entry of the eight ship characteristics. Enter the required data for each characteristic from the Ship Characteristics Entry Sheet (SCES: Appendix A of the **Captain's Battle Manual**) or from the scenario you have selected from Appendix B of the **Captain's Battle Manual**.

Position Data

After the ship characteristics have been entered, prompts will appear for the following:

HEADING?

X COORD?

Y COORD?

Enter the starting X coordinate, Y coordinate and heading for the ship. Headings are entered as a number between 0 and 7 corresponding to the directions discussed previously under "ENTER WIND DIRECTION".

E. PRELIMINARIES

Game Options

After the game loads, the computer will print:

ENTER WIND DIRECTION (0-7)?

Enter a number between 0 and 7 corresponding to the direction **from** which the wind is blowing.

0-North
1-Northeast
2-East
3-Southeast

4-South
5-Southwest
6-West
7-Northwest

Depending on whether you are playing the solitaire or multi-player version, the following prompt will appear:

Solitaire Option: ENTER SKILL LEVEL (1-9)?

Enter a number between 1 and 9. The higher the number, the more difficult it will be to defeat the computer opponent.

Multi-Player Option: ENTER NUMBER OF SHIPS?

Enter the number of ships in the scenario. You may select any number of ships between 2 and 8. It is recommended that an inexperienced player command no more than 2 ships.

F. UNGRAPPLING/UNFOULING PHASE

The ungrappling/unfouling phase occurs only for ships which are grappled or fouled. Depending on a ship's particular status, prompts will be given to:

RELEASE GRAPPLES?

ATTEMPT TO UNGRAPPLE?

ATTEMPT TO UNFOUL?

Each of these is responded to by a "Y" (Yes) or "N" (No) command. Results (SUCCEED/FAIL) are then printed.

RELEASE GRAPPLES means that you are intentionally releasing your grapples from a ship which you previously grappled. Releasing grapples succeeds automatically.

ATTEMPT TO UNGRAPPLE refers to your attempt to remove another ship's grapples. Factors affecting a ship's ability to successfully ungrapple are discussed in Case 3.3 of the Captain's Battle Manual.

ATTEMPT TO UNFOUL refers to your attempt to disentangle your rigging from that of another ship. Refer to Case 3.4 of the Captain's Battle Manual for factors affecting a ship's ability to successfully unfoul.

G. MOVEMENT PHASE

General

The movement display shown in Figure 1 covers:

Movement Orders

Movement Summary

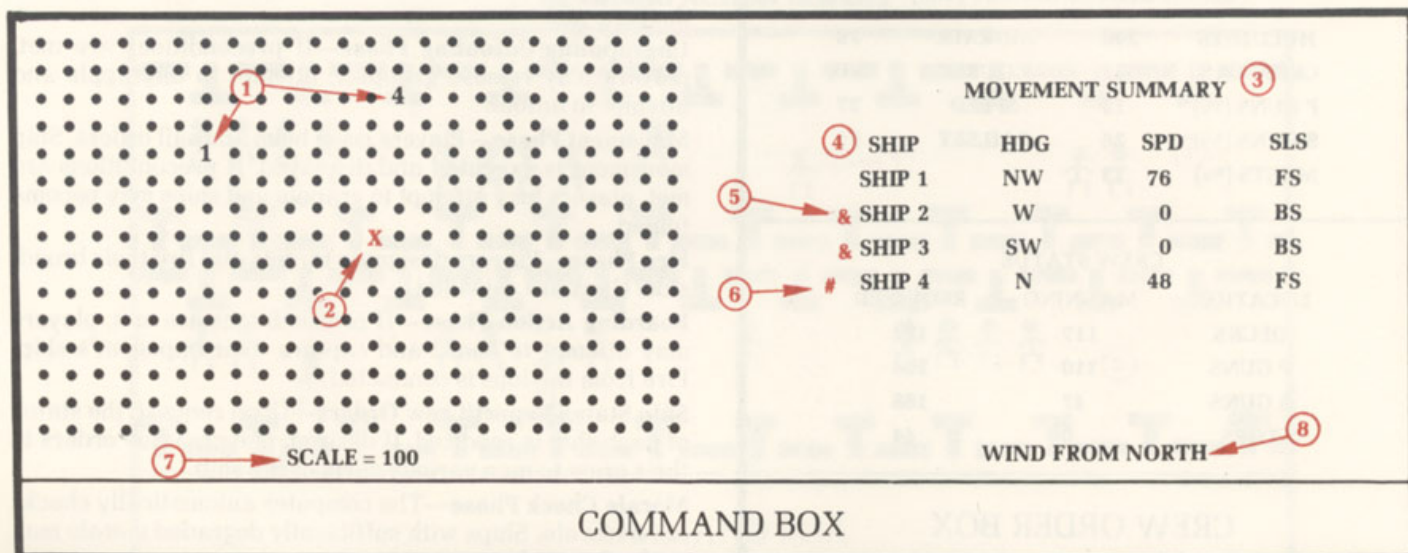
Fouling and Grappling

Relative positions of the ships are shown on the position grid located on the left side of the display. Note that these are **approximate** positions directed by the scale factor 7. CFA uses a variable scale for the distance between points on the position grid depending on the distances between ships. As the ships come closer together, the scale factor decreases to a minimum value of 100 meters.

Movement information for each ship is shown on the right side of the display. All commands are entered from prompts which appear in the Command Box.

Movement orders are entered for each eligible ship. When all movement orders are entered, movement is executed and the movement display is updated. If conditions for grappling and/or fouling exist at the end of movement, the Fouling/Grappling Phase is executed.

FIGURE 1
MOVEMENT DISPLAY



Movement Orders

Movement Orders may be issued each turn unless the ship is:

- Grappled or Fouled, or
- Executing a tack, or
- Struck

Movement orders consist of SAIL ORDERS and HELM ORDERS. The following SAIL ORDERS may be issued.

- F FULL SAILS:** All sails are set. Ship will sail at maximum speed [2.2]. Mast damage from fire will be greater [4.4.3].
- B BATTLE SAILS:** Ship will sail at 75% of maximum speed [2.1]. Mast damage will be less than damage when full sails are up [4.4.3].
- K BACK SAILS:** Rapidly slows forward motion of ship [2.5.1]. Certain conditions must be met in order to Back Sails [2.3.3 & 2.5.1].
- N NO CHANGE:** Sails will remain in their current setting.

In order to change a ship's sails, or back sails, sufficient manning must exist [2.3].

The following HELM ORDERS may be issued.

- P TURN TO PORT:** Ship turns 1 point (45 degrees) to the left [2.2].
- S TURN TO STARBOARD:** Ship turns 1 point (45 degrees) to the right [2.2].
- T TACK:** Ship turns across the wind [2.4]. Certain preconditions must be met before a ship will tack [2.4.1].
- N NO CHANGE:** Ship will continue on its present heading.

In order for a ship to turn (PORT, STB) certain conditions of manning and speed [2.2.2] must be met. Ships cannot turn into the wind.

Movement Display

The movement display is shown in Figure 1.

- Relative positions of SHIPS 1 and 4.
- SHIP 2 and SHIP 3 are in the same grid spot. "X" symbol denotes two or more ships in the same grid spot.
- During Movement Order Phase this heading reads "MOVEMENT ORDERS".
- SHIP** denotes the ship name. Ships are listed in order of their ship I.D. number.

HDG denotes the ship's heading.

SPD denotes the ship's speed.

SLS denotes the ship's sail setting.

FS = Full Sails

BS = Battle Sails

BK = Back Sails

⑤ & denotes fouled or grappled ship.

⑥ # denotes tacking ship.

⑦ The scale of the position grid. The distance (horizontally and vertically) between points on the position grid.

⑧ The direction **from** which the wind is blowing. On the position grid North is at the top of the screen.

Movement Summary

After all movement orders are entered, the ships move. The position grid is updated to show the new positions of the ships and, simultaneously, the Movement Summary is updated to show each ship's heading, speed and sailset.

H. FOULING/GRAPPLING PHASE

If at the end of movement, ships are sufficiently close (150 meters or less) to foul [3.2] or attempt to grapple [3.1], the fouling/grappling phase is executed. Fouling occurs automatically and probabilistically [3.2.4]. If two ships foul, a message is printed in the command box.

Grappling is optional. Players are prompted in the command box for a Yes (Y) or No (N) answer asking if they wish to grapple another ship. Results of a grappling attempt appear in the command box and the Movement Summary is updated accordingly. See case 3.1.4 for the probability of successfully grappling.

I. FIRE PHASE

General

The Fire Phase includes the following:

Fire Orders

Fire and Damage Allocation

Gun Reload

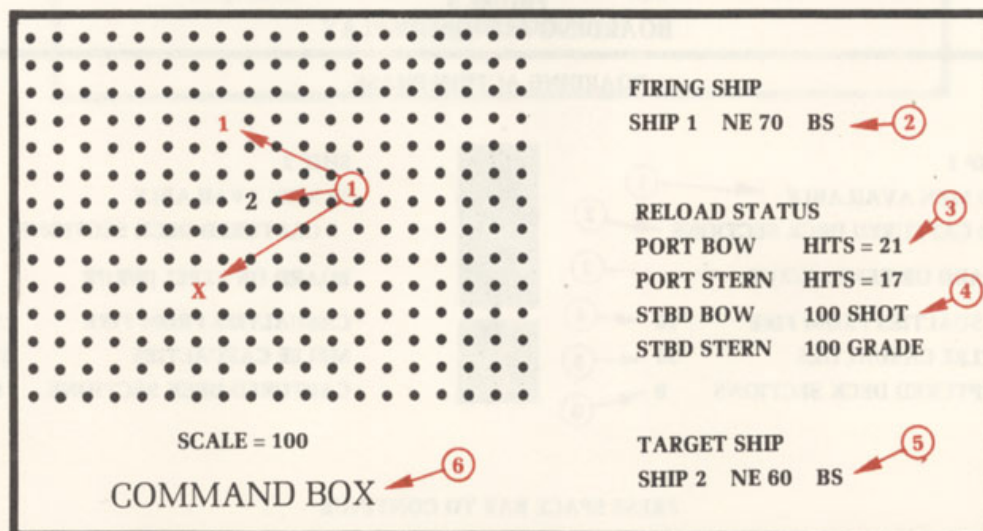
The fire display is shown in Figure 2. The relative positions of the ships are shown on the position grid on the left side of the fire display. The position grid is identical to the position grid used in the movement display (Figure 1).

The firing ship is identified on the right side of the display along with the reload status of its four gun sections. After a gun section fires, the reload status is replaced with the number of HITS [4.4] recorded by that gun section on the target ship. When a target ship is selected it is identified in the lower right corner.

The command box at the bottom left of the display is used to prompt fire and reload orders.

The fire display is shown in Figure 2. The relative positions of the ships are shown on the position grid on the left side of the fire display. The position grid is identical to the position grid used in the movement display (Figure 1).

FIGURE 2
FIRE DISPLAY



Although fire is conducted sequentially it is treated as simultaneous fire by the computer. This means that damage from fire is not allocated until all fire has been completed.

The description of FIRE given below is for the **multi-player** version. Exceptions pertaining to the **solitaire** version are discussed under the heading **Solitaire Version** of these rules.

Fire Orders

Fire orders are issued in two parts:

TARGET SHIP I.D. NO.?
HULL OR RIGGING (H/R/C)?

For the first prompt, enter the I.D. number of the ship at which you wish to fire. Enter "0" if you do not wish to fire.

After the target ship has been specified, a prompt appears to designate whether you are directing fire at the target ship's HULL or RIGGING [4.4]. Acceptable commands are:

"H"—Firing at target's hull
"R"—Firing at target's rigging
"C"—Cancel fire order. Return to target ship I.D. No.

If, after fire orders have been issued, the computer calculates that the target ship is outside the arc of the firing ship's guns [4.3], it will print the message "GUNS DON'T BEAR". If this occurs and there are more than two ships in the scenario, you will be given an opportunity to issue fire orders for another target. Additionally, if there are more than 2 ships in the scenario, you will be given an opportunity to fire again (the other broadside).

Fire Display

The fire display is shown in Figure 2.

- ① Ship's positions (see Figure 1).
- ② Firing ship name, heading, speed and sailset.
- ③ The number of hits recorded by the gun section.
- ④ Reload Status. In the example shown, the starboard bow section is 100 percent reloaded with shot.
- ⑤ Target ship name, heading, speed and sailset.
- ⑥ Command prompts appear here.

Fire and Damage Allocation

After fire orders are issued, loaded guns [4.6] are fired from the appropriate side (port or starboard) of the ship. The number of HITS [4.4] recorded by each section on the target ship is displayed. If double shot or double grape [4.2] is being fired each HIT does double damage [4.4].

Damage allocation [4.4] is computed after all ships have fired. Damage allocation consists of converting the HITS recorded during the fire phase to damage to specific parts of the ship and to crew. Overall damage is displayed in the SHIPS STATUS REPORT.

Reload

After a ship has finished firing, it must reload each gun section that fired with one of five types of shot [4.2].

1. Round Shot
2. Grape Shot
3. Double Round Shot
4. Double Grape Shot
5. Dismantling Shot

A reload prompt appears in the command box. Enter a number between 1 and 5 corresponding to the type of shot to be loaded in the indicated (prompted) gun section.

J. BOARDING ACTION PHASE

General

Boarding Actions occur when opposing ships are grappled or fouled. During the boarding action phase, players order crew assigned to DECKS to either BOARD the enemy ship or REPEL enemy boarders. The boarding action display (Figure 3) depicts the status of each ship and the results of melee. Depending on their orders, crew sections will move and engage in melee [6.2]. Boarding actions are usually decisive due to the heavy morale weighting of captured deck sections and the heavy casualties sustained during melee [5.3].

Boarding Action Orders

During the boarding action phase, players order their crews to BOARD [6.2.3] or REPEL [6.2.2]. Crew ordered to BOARD will attack opposing crew and attempt to capture deck sections on the opposing ship. Crew ordered to REPEL will oppose enemy crew attempting to board their ship.

Melee occurs between individual opposing crew sections. Melee is discussed under Case 6.2.4 of the **Captain's Battle Manual**.

Boarding Action Display

The Boarding Action Display (Figure 3) shows the results of melee. At the beginning of the boarding action phase, the status, ① and ②, of each ship is displayed. Each player then enters orders as prompted ③, fire from the tops [4.5] is then conducted and the results displayed ④. Melees between opposing crew sections [6.2] are then conducted. Casualties ⑤ and deck section losses ⑥ are displayed as they occur. When the boarding action phase is completed, the prompt, PRESS SPACE BAR TO CONTINUE, appears.

Note that the CAPTURED DECK SECTIONS denotes the number of deck sections that have been captured on the owning player's ship. In Figure 3, SHIP 2 began the boarding action phase with 5 deck sections captured by SHIP 1. As a result of melee, 4 additional deck sections were lost to SHIP 1, so that at the end of melee, SHIP 2 had lost 9 of its deck sections.

FIGURE 3
BOARDING ACTION DISPLAY

BOARDING ACTION PHASE			
SHIP 1		SHIP 2	
180 MEN AVAILABLE	①	75 MEN AVAILABLE	
0 CAPTURED DECK SECTIONS	②	5 CAPTURED DECK SECTIONS	
BOARD OR REPEL (B/R)?B	③	BOARD OR REPEL (B/R)?R	
CASUALTIES FROM FIRE	18	CASUALTIES FROM FIRE	15
MELEE CASUALTIES	35	MELEE CASUALTIES	45
CAPTURED DECK SECTIONS	0	CAPTURED DECK SECTIONS	9
	④		
	⑤		
	⑥		
PRESS SPACE BAR TO CONTINUE			

Melee

Melee combat is discussed in section 6.2 of the Captain's Battle Manual. Each ship has a total of 40 deck sections. Each deck section is held by a crew section (5 men). Therefore, the maximum number of crew sections which can be **effectively** employed in melee is equal to:

$$5 \times (\text{Number of deck sections held on the owning player's ship} + \text{Number of deck sections captured on the opposing player's ship})$$

It is important to maintain at least 20 crew sections (100 men) onboard. This is the number of crew sections required to fully defend the "rails" and prevent enemy crew sections from capturing sections unopposed.

K. SHIP STATUS REPORT AND CREW ORDERS

Ship Status Report

The Ship Status Report is shown in Figure 4. This report is printed when the player answers Yes "Y" to the Ship Status prompt which appears at the top of the screen. The upper portion of the report displays damage to the various parts of the ship, crew morale and movement information.

The Crew Status section indicates the number of crew (ACTUAL) at each location. The REQUIRED row indicates the number of crew needed to fully man each location. Specifically:

- DECKS The number of crew required to fully man the sails (CSMF = 1.0).
- P. GUNS & S. GUNS The number of crew required to fully man the Port and Starboard guns. Note that this number will decrease during the course of the game as damage to the guns is sustained [4.6].
- TOPS The maximum number of crew who can occupy the tops [5.2.3].

Crew Orders

Crew orders are used to move a ship's crew from one location to another. Refer to case 5.1 of the Captain's Battle Manual for the functions performed by crew at various ship locations.

Four prompts are used to issue crew orders.

CREW ORDERS (Y/N)?

If Yes (Y) is indicated, the following prompts will appear.

LOCATION FROM?

LOCATION TO?

NUMBER OF MEN?

Enter a number between 1 and 4 to designate LOCATION TO/FROM.

1-Decks

3-Starboard Guns

2-Port Guns

4-Tops

Enter the number of men to be moved after the prompt, NUMBER OF CREW.

Refer to case 5.2.2 for limitations on the number of crew which can be moved in a turn.

L. VICTORY OR DEFEAT

When a ship STRIKES (surrenders) [7.0], a message is printed and the following prompt appears:

CONTINUE OR NEW GAME (C/NG)?

Enter "C" if you wish to continue the present game.

Enter "NG" if you wish to start a new game.

FIGURE 4
SHIP STATUS DISPLAY

SHIP 1 STATUS REPORT (Y/N)?					
HULL HITS	212	MAST DAM	7	COURSE	NW
P. GUNS (%)	16	CREW CAS	43	SPEED	96
S. GUNS (%)	0	MORALE	89	SAILSET	BS

CREW STATUS				
LOCATION	1. DECKS	2. P. GUNS	3. S. GUNS	4. TOPS
ACTUAL	156	115	20	0
REQUIRED	140	110	130	30

CREW ORDERS (Y/N)?	
--------------------	--

DESIGNER'S NOTES

Work on CLEAR FOR ACTION (CFA) began over three years ago which in microcomputer time is more like three light years. In its early forms, the computer was used as a playing aid and referee for sailing miniatures. Engagements were fought between miniature sailing ships on a grid map and the computer was used to calculate such things as movement and fire, and to perform all the bookkeeping functions required for a good simulation. The initial thrust of the design was to use the power of microcomputer to support a highly realistic **gaming system** which **simulated** 18th and early 19th century naval conflict. In the author's humble opinion, both of these objectives were met and have been preserved; however, at this early stage of development, CFA was not a particularly good computer game. First, it lacked a computer opponent and one of the benefits of a "computer game" is that of always having "someone" to play with. Although I personally prefer human to computer opponents, the computer opponent option opens CFA to players who cannot always find a human opponent and also provides an opportunity for players to develop their skills (See Play of the Game within these notes).

Secondly, the early versions of CFA did not pay sufficient attention to the man-machine interface. On the input side, the command structure was cumbersome and on the output side, the requirement to reposition figures or counters on a grid map interrupted the flow of the game by forcing players to constantly switch the focus on their attention from the computer screen to the grid map.

The command structure was improved substantially through a combination of better programming and minor sacrifices in the simulation. For example, the program was made smarter. Where an order to tack formerly required three instructions, it now requires only one. An example of a simulation sacrifice was the standardization of the time for each turn. In early versions, the time associated with each turn could range from 15 seconds to 5 minutes. Deleting this feature eliminated the need for players to decide and enter the length (in time) of each turn.

Replacing the grid map with a screen display greatly enhanced the playability with some expense to resolution. The old grid map allowed precise positioning of the ships while on the screen, only approximate positions can be displayed. Playtesting has shown that this is not a real problem especially with the sliding ground scale which seeks the highest level of resolution consistent with the distance between ships.

CFA as a Gaming System

CFA provides a framework for simulating 18th and 19th century naval conflict. Unlike many computer games which present the player's with a fixed or extremely limited situation, CFA allows the player's to select from an essentially unlimited combination of units (ships) and situations. At the beginning of the game, players can uniquely define the ships which will participate in the engagement. Appendix A of the Captain's Battle Manual (CBM) provides the instruction for taking the historical (or fictional) characteristics of a ship and converting them into terms that the computer simulation can understand. Additionally, with a little imagination, players can create scenarios that are not always dependent on one ship causing another to STRIKE. For example, it is easy to design a scenario whereby a convoy, simulated by a very large, slow, low fire-power ship must be protected by an escort from privateers or enemy frigates. Another example could be a "breakout" whereby one side is required to get through an enemy blockading squadron without being captured.

The CBM is somewhat unusual as far as computer game documentation is concerned. In this document, a considerable effort has been made to explain to the player what is really going on inside the simulation. This approach is consistent not only with the gaming system philosophy of CFA but also with the perspective of the player—that of a ship's captain. This is central to the entire structure of the game. The input structure (command) has been designed to focus on the key tactical command elements of movement, fire and the allocation of the ship's crew while the output (display) is structured to present you with the information you will need to make these decisions. The CBM is the bridge between the input and the output. A solid grasp of the concepts embodied in the CBM gives you the ability to analyze the situation presented by the computer and execute the right commands. In short, to be good at this game, you have to acquire the same kind of knowledge as a ship's captain.

CFA as a Simulation

As a simulation, I believe that CFA does a very good job in some areas and a credible job in others. Overall, it represents a marked improvement over any miniature or board gaming system. Nevertheless CFA, too, has its limitations which arise from constraints imposed by computer memory and more importantly from the inevitable trade-offs which must be made between the realism of the simulation and the capabilities of the players to handle information and thereby enjoy the play of the game. A few examples may help to clarify these points and also illustrate the kinds of decisions (trade-offs) involved in designing a game like CFA.

It would be more realistic, for example, to simulate each gun on a ship. Such an approach, however, creates obvious problems (consider the 130 gun Santissima Trinidad) with computer memory and processing speed. Moreover, one has to ask the question, "Is it feasible or even important for a player to follow the status of each gun?" My answer to this question was "No" and the compromise was to create gun sections rather than guns as discrete firing elements.

Another example of design trade-offs is the 45° turn increment. Realistically, the wooden sailing ships steered by a 16 point compass. The decision to limit the number of possible sailing points to 8 detracts from this aspect of realism. It was a tough tradeoff. There were several minor reasons, but the single most important factor was the difficulty in translating intermediate points of sailing onto the position grid (the gestalt). It proved to be too tiring mentally on the players, especially when it came time to figure firing angles. The grid lends itself nicely to 45° increments (simple horizontals, verticals and diagonal) while 22½ degree increments are much more difficult to conceptualize.

In designing CFA, a real effort was made to minimize time/space "warps"—a common phenomenon in many conflict simulations. Everything is scaled to meters and minutes. The speeds of the ships are realistic and more importantly ship movement operates on the same scale as the gun ranges. Reload times are historical and more subtly, the game does not allow the entire crew of a ship to move from one location to another instantaneously. This same concept is applied to ship movement where an attempt is made to simulate acceleration rather than instantaneous major speed changes.

I must admit that damage and casualties pile up faster in CFA than they usually did historically. Often, battles between ships raged for hours. The reason for the accelerated damage is simply to speed up the game. No one wants to spend 4 or 5 game hours (240 to 300 turns) to resolve a battle.

The Computer Opponent

The discussion would be incomplete without a few words on the computer opponent. I'm rather proud of him. He has shown himself to be a consistently good fighter and on occasion he has truly surprised me with a totally unexpected maneuver or some other dirty trick. You will find that he has a personality which can vary from game to game and even within a game. He is smart enough to know how well or poorly he is doing. He knows when he's got you and when discretion is the better part of valor. Like a good commander, he will attempt to anticipate your moves. This applies not only to the maneuvering of his ship but also to the deployment of his crew and even to the selection of ammunition. Don't expect to catch him sleeping—he is an alert commander but is not perfect. He will occasionally do seemingly stupid or irrational things which may not always turn out to be as stupid or irrational as they first appear.

Play of the Game

Learning to play CFA is easy. I know this for a fact having gotten my twelve year old son and his friends up and running in about 10 minutes. Playing the game well, on the other hand, is quite a different matter. Knowing how to sail helps. Prior experience with sailing miniatures or naval games is a definite plus as is some historical background on the period. If the description above fits you, you will probably do pretty well from the beginning. If not, don't despair. Rather, think of yourself as a young captain with his first command. You, like him, will need to master the skills of your trade through experience and study of your Battle Manual. To help you along, I have provided a few tips below to help you get started.

1. Don't try to digest the CBM in one sitting. The best way to learn is to first gain a general familiarity with this document and then play some practice games referring to the manual as you go along. After a while you will start to understand why certain, often subtle, things are happening.
For example, you should notice as casualties mount, the same number of "hits" result in fewer additional casualties because there are fewer effective crew (lower density) left on the ship to be hit! You will certainly notice that the rate of gun reload decreases as crew morale degrades. Remember, these are men not machines reloading the gun and after a while they get tired!
2. Momentum is very important. It takes quite a while for these ships to build up speed.
3. Take particular note of the fire effects of Full vs Battle sails on mast damage. They are substantial.
4. Know your ship's strengths and weaknesses and develop your strategy on this basis. For example, if your ship is heavily armed with carronades you don't want to fight a long range gun duel against a ship who has a long gun superiority.
5. Anticipate! It is very embarrassing, for example, to have your ship grappled with insufficient crews on your decks to repel enemy boarders.
6. Fire from the tops can be very effective. Many players ignore this because they don't get any direct output of its effect. If you don't believe me, read an account of Bonhomme Richard vs Serapis!

As a final note, I encourage you to read about this very colorful period in history. It should improve your game, definitely provide some very interesting source material for scenarios and generally add to your overall enjoyment of the game. I hope that you will find CLEAR FOR ACTION an enjoyable game and that you will continue to enjoy it for many years.

Michael W. Stradley
July 1984

THE AGE OF WOODEN SHIPS

Keeping a sailing ship afloat on the high seas was a demanding task requiring years of experience. Numerous factors had to be kept in mind to deal with any possible problem, from keeping up the morale of the crew and the seaworthiness of the ship, to keeping an eye on local weather and tidal conditions. The man charged with the responsibility of fulfilling these tasks was the captain, and it is worth noting that, more than anything else, the quality of the captain determined the quality of the ship he commanded.

NAVAL COMBAT

Because a running gunfight could leave the victor as battered as the victim, a favorite tactic was to maneuver one's ship to fire its weapons while the other ship could not. By crossing the bow or the stern of the target—called "raking" or "crossing the T"—the attacking ship would be able to fire a full broadside, while the majority of the other ship's guns could not bear at all. This tactic could cause considerable damage, since the shot could run the full length of the enemy ship.

The ships during this age used several different types of ammunition, each with a specific purpose. Shot was a solid ball intended to cause structural damage to the ship. Its weight varied from 9 to 32 pounds, with the English carronades running up to 68 pounds. For greater effectiveness, guns were sometimes double and triple shotted, but this increased the chance of the gun blowing up, and reduced the range considerably.

Other common ammunition types included grape and dismantling shot. Grapeshot was an anti-personnel weapon consisting of hundreds of musket balls in a serge bag. There were various types of dismantling shot, a common form being two cannonballs chained together. Dismasting shot was designed to tear up the standing rigging which supported the masts and spars, causing them to crash.

A quality crew was just as important as effective weaponry, for firing the guns was a tricky business. Cannons were made of iron or brass weighing up to 5,000 pounds. They were laid on dollies and held in place with rope and tackle, and were a challenge to keep in place when the ship was facing heavy rolling seas. In battle, they threw out tremendous noise and smoke, and their recoil made them hazardous to the crew manning them.

Handling a gun in battle required a series of steps which, when followed by a well-trained crew, could result in one shot every two minutes (it is worth noting that the *H.M.S. Dreadnought* could fire a full broadside every 40 seconds)! The procedure was as follows:

After the gun was fired, a large corkscrew was inserted into the barrel to pull out any burning material. The barrel was then swabbed with a sponge on a ramrod to douse any embers still within. A bag of gunpowder in a flannel or paper bag was rammed home while the vent-man placed his padded thumb over the vent to prevent spontaneous combustion should any embers remain. The gun-captain then placed a powder-filled primer down the vent, piercing the bag. This primer resembled a hollow straw and carried the spark that would set the charge off. The ball was shoved down the barrel, wrapped in cloth to hold it in place. The flintlock was set and the guns "run out".

After aiming the cannon, the gun captain touched the top of the priming-tube with a slow-burning wick at the end of a long forked staff called the linstock. The spark traveled down the tube, set off the gunpowder, and the gun fired. This was the most dangerous moment, for if the gun captain did not move the linstock away fast enough, the explosion blowing out of the vent could knock it out of his hands, while the recoil of the gun—affected in part by the roll of the ship—could incapacitate or kill an unlucky crewman.

FLEET TACTICS

The lessons of fighting in the 1690s during the War of the English Succession led Admiral George Rooke to codify his experiences into a set of rules known as the "Fighting Instructions." He believed that the ideal English naval battle demanded linear tactics. Turning his fleet onto a parallel course to the enemy, and engaging them in a short-range, one-on-one duel would force the enemy to flee. With these tactics at Malaga (13 August 1704), he forced the French ships to withdraw, and the "Fighting Instructions" became the English battle orders.

But there were several problems with the Instructions. Besides the problems of applying them in situations different than the one Rooke faced (an equal force, with the wind at his back), its lynchpin was the ability of the fleet to enter the battle simultaneously. While the Royal Navy had developed a system of signalling with flags, it was a limited form of communication. The advent of the "Fighting Instructions" forced a commander to signal his ships to perform a simultaneous turn towards the enemy lines. Hornblower aside, each ship had differing crew quality and ship speeds, and it was rare when they were able to perform a move that required such timing. What happened more often than not was that the ships entered the battle piecemeal, as they did at Minorca under the unfortunate Sir John Byng. Despite his numerical superiority (an eventuality not covered under the Instructions), communications failures and Byng's own incompetence turned victory into a minor defeat. But unlike other Admirals, who were merely court-martialed for failure, Byng was shot "to encourage the others."

The only way a captain could win a battle without violating the Instructions was by the "General Chase." Taking advantage of the French reluctance for close-action, the British would order a free-for-all chase, with each ship sailing towards the closest enemy ship as rapidly as possible.

At the battle of the Saintes in 1782, Admiral George Rodney pierced the French line for the first time since 1690, won, and was not court-martialed. The end was near for the linear battle. At Trafalgar in 1805, Nelson used non-linear tactics to smash the Franco-Spanish fleet. A hundred years after Malaga, the Instructions were finally thrown overboard.

BOARDING ACTIONS

While the cannon possessed incredible destructive power, many engagements were decided by grappling a ship and boarding her. It was a decisive tactic, resulting in an extremely bloody victory. Compare the *Chesapeake/Shannon* clash to the four-ship battle between the English *Dido* and *Lowestofft* vs. the French *Minerve* and *Artemise*. The latter was a gunnery duel at long and close range, followed by a quick boarding and capture of the *Minerve* (the *Artemise* fled the battle early on). Total casualties were dead and wounded. The *Chesapeake/Shannon* battle included a furious 5-minute melee at close quarters, with the *Chesapeake* losing 39% of her men, and the *Shannon* (the victor) losing a quarter of hers.

William E. Peschel

John Nicol and Jack Nastyface were seamen whose memoirs give a rare glimpse into the life on a Royal Navy ship during the Napoleonic wars. While the captains and politicians were concerned with the larger issues of the conflict, to the men serving before the mast, the war was something that should be fought so they could all go home.

Nicol was a competent seaman whose accounts of the battles at Cape St. Vincent and the Nile were marred by the fact he served in the powder magazine and saw little of each battle. Yet, this was a common experience for a majority of men serving on these ships.

"We ran in between the French fleet and the shore (he says of the Nile battle), to prevent any communication between the enemy and the shore. Soon as they were in sight, a signal was made from the Admiral's ship for every vessel, as she came up, to make the best of her way, firing upon the French ships as she passed and 'every man to take his bird,' as we jokingly called it. The *Goliah* led the van. There was a French frigate right in our way. Captain Foley cried, 'Sink that brute, what does he there?' In a moment she went to the bottom, and her crew were seen running into her rigging.

"I saw as little of this action as I did of the one of the 14th February off Cape St. Vincent. My station was in the powder magazine with the gunner. As we entered the bay, we stripped to our trowsers, opened our ports, and every ship we passed gave them a broad-side and three cheers. Any information we got was from the boys and women who carried the powder. The women behaved as well as the men, and got a present for their bravery from the Grand Signior. When the French Admiral's ship blew up, the *Goliah* got such a shake, we thought the afterpart of her had blown up until the boys told us what it was. They brought us every now and then the cheering news of another French ship having struck, and we answered the cheers on deck with heart-felt joy.

"In the heat of the action, a shot came right into the magazine, but did no harm, as the carpenters plugged it up and stopped the water that was rushing in. I was much indebted to the gunner's wife, who gave her husband and me a drink of wine every now and then which lessened our fatigue much. There were some of the women wounded and one woman belonging to Leith died of her wounds, and was buried on a small island in the bay. One woman bore a son in the heat of the action; she belonged to Edinburgh.

"When we ceased firing, I went on deck to view the state of the fleets, and an awful sight it was. The whole bay was covered with dead bodies, mangled, wounded and scorched, not a bit of clothes on them except their trowsers. There were a number of French, belonging to the French Admiral's ship, the *L'Orient*, who had swam to the *Goliah* and were cowering under her fore-castle. Poor fellows, they were brought on board, and Captain Foley ordered them down to the steward's room, to get provisions and clothing.

"The only incidents (during the battle) I heard of are two. One lad who was stationed by a salt-box on which he sat to give out cartridges and keep the lid close—it is a trying berth—when asked for a cartridge, he gave none, yet he sat upright; his eyes were open. One of the men gave him a push; he fell all his length on the deck. There was not a blemish on his body, yet he was quite dead, and was thrown overboard. The other, a lad who had the match in his hand to fire his gun. In the act of applying it a shot took off his arm; it hung by a small piece of skin. The match fell to the deck. He looked to his arm, and seeing what had happened seized the match in his left hand and fired off the gun before he went to the cockpit to have it dressed. They were in our mess, or I might never have heard of it. Two of the mess were killed and I knew not of it until the day after. Thus terminated the glorious first of August, the busiest night in my life."

Jack Nastyface had served at Trafalgar, on the *Revenge*, and saw a little more of that battle than Nicol did of Cape St. Vincent and the Nile.

"After beating about the Channel for some time, we were ordered to proceed along the Spanish coast to look after the combined fleet of France and Spain. We arrived off Cadiz, where we found they had got safe in. Here we continued to blockade them, until Nelson joined us with five sail of the line. In order to decoy the enemy out, stratagem was resorted to, and five sail were sent to Gibraltar to victual and water, whilst Nelson with his five sail kept out of sight of the enemy, and thus they thought we were only twenty-two sail of the line, whilst their fleet consisted of thirty-three

sail. With this superior force they put to sea, with the intention, as we afterwards learned, of taking our fleet; and if they had succeeded, possessed of so great a force they were to occupy the Channel, and assist in the invasion of England by the troops then encamped along the French coast, with an immense number of flat-bottomed boats, with which the French ports swarmed. But here, as in many other instances, they reckoned without their host. British valour and seamanship frustrated their design and destroyed their hopes; for on the memorable 21st of October 1805, as the day began to dawn, a man at the topmost head called out 'A sail on the starboard bow', and in two or three minutes more he gave another call, that there was more than one sail, for indeed they looked like a forest of masts rising from the ocean, and as morning got light we could plainly discern them from the deck, and were satisfied it was the enemy, for the Admiral began to telegraph to that effect. They saw us and would gladly have got away when they discovered we counted 27 sail of the line, but it was too late.

"As the enemy was thus driven to risk a battle, he exhibited a specimen of their naval tactics by forming themselves into a crescent, or half-moon, waiting for our approach, which did not take place until ten minutes of twelve o'clock, so that there was nearly six hours to prepare for battle; while we glided down to them under the influence of a gentle breeze, cheering to every seaman's heart, that Providence took us in tow, and from a signal made by Lord Nelson, our ships were soon formed into two lines, weather and lee.

"During this time each ship was making the usual preparations such as breaking away the Captain's and officer's cabins, and sending all the lumber below—the doctors, parson, purser and loblolly men, were also busy getting the medicine chests and bandages out, and sails prepared for the wounded to be placed on, that they might be dressed in rotation as they were taken down to the aft-cockpit. In such a bustling and, it may be said, trying as well as serious time, it is curious to notice the different dispositions of the British Sailor. Some would be offering a guinea for a glass of grog, whilst others were making a kind of mutual verbal will, such as: 'If one of Johnny Crapeau's shots (a term given to the French) knocks my head off, you will take all my effects, and if you are killed and I am not, why, I will have yours and this is generally agreed to.'

"During this momentous preparation the human mind had ample time for meditation and conjecture, for it was evident that the fate of England rested on this battle; therefore well might Lord Nelson make the signal 'England expects each man will do his duty.'

"As we drew near, we discovered the enemy line was formed with a Spanish ship between two French ones nearly all through their line, as I suppose, to make them fight better; and it must be admitted that the Dons fought as well as the French in that battle; and, if praise was due for seamanship and valour, they were well entitled to an equal share. We now began to hear the enemy's cannon opening on the *Royal Sovereign*, commanded by Lord Collingwood, who commenced the action, and a signal being made by the Admiral to some of our senior captains to break the enemy's line at different points, it fell to our lot to cut off the five stern-most ships; and, while we were running down to them, of course we were favoured with several shots and some of our men were wounded. Upon being thus pressed, many of our men thought it hard that the firing should all be on one side and became impatient to return the compliment; but our captain had given orders not to fire until we got close in with them, so that all our shot might tell—indeed these were his words: 'We shall want all our shot when we get close in. Never mind their firing: when I fire a carronade from the quarter deck, that will be the signal for you to begin, and I know you will do your duty as Englishmen.'

"In a few minutes the gun was fired and our ship bore in and broke the line, but we paid dear for our temerity, as those ships we had thrown into disorder turned round and made an attempt to board. A Spanish three-decker ran her bowsprit over our poop, with a number of her crew in it, and in her fore rigging, two or three hundred men were ready to follow; but they caught a Tartar, for their design was discovered and our marines with their small arms, and carronades on the poop, loaded with canister shot, swept them off so fast, some into the water and some on the decks, that they were glad to sheer off.

"While this was going on aft, we were engaged with a French two-deck ship on our starboard side, and on our larboard bow, another, so that many of their shots must have struck their own ships, and done severe execution. After being engaged about an hour, two other ships fortunately came up, received some of the fire intended for us and we were now enabled to get at some of the shot-holes between wind and water and plug them up. This is a duty performed by the carpenter and his crew. We were now unable to work the ship, our yards, sails and masts being disabled, and the braces completely shot away. In this condition we lay by the side of the enemy, firing away, and now and then we received a good raking from them passing under our stern. This was a busy time with us for we had not only to endeavour to repair our damage, but also to keep to our duty. Often during the battle we could not see for the smoke whether we were firing at a foe or a friend, and as to hearing, the noise of the guns had so completely made us deaf, but we were obliged to look only to the motions that were made. In this manner we continued the battle till near five o'clock when it ceased.

"It was shortly made known by one of our boat's crew that Lord Nelson had received a fatal shot; had this news been communicated through the fleet before the conflict was over, what effect it might have had on the hearts of our seamen I know not, for he was adored, and in fighting under him, every man thought himself sure of success; a momentary but naturally melancholy pause among the survivors of our brave crew ensued.

POPULAR READING

There are numerous books and games about this fascinating period. The primary and most popular fictional sources are the Hornblower books by C.S. Forester. The career of Captain Horatio Hornblower through the British naval ranks is traced through eleven novels, from midshipman to commodore. Although the good captain seems lost in his brooding and racked with personal guilt too much of the time, Forester has captured well the spirit of the Royal Navy during the Napoleonic Wars. Reading these books is entertaining and an education; required reading for anyone interested in the era of wooden ships.

The Bolitho series by Alexander Kent is on a par with the Hornblower series. It offers equally exciting reading matched with a good historical perspective.

"Sea Life in Nelson's Times" by Charles Low provides accounts of what it was like for the men serving in the wooden sailing ships.

"Famous Frigate Actions" by Charles Low is an excellent source for designing scenarios.

"The Age of Sails," Volume II in the War at Sea series and written by John Van Duyn Southworth, is fairly light reading that provides a concise overview of naval conflict in the age of golden sail.

In the boardgame field, Avalon Hill also publishes "Wooden Ships & Iron Men." Its rules are complex and contains an enormous number of scenarios. WS&IM can be used to recreate the larger battles of Trafalgar and Minorca.

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Clear for Action[®]

CAPTAIN'S BATTLE MANUAL



FOR:

Atari[®] Home Computers, 48K
TRS-80[®] Models I/III/4, 48K

Clear for Action

CAPTAIN'S BATTLE MANUAL

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INTRODUCTION

This manual describes how various aspects of the game are simulated and also provides information for constructing a scenario. The notation [] is used to refer you to appropriate sections of the manual for additional information on a subject.

1.0 WIND DIRECTION

The wind direction is the direction **from** which the wind is blowing. There are eight possible wind directions corresponding to the major points of the compass. Ships may not sail closer than one point (45 degrees) to the wind unless they are tacking [2.4].

2.0 MOVEMENT

The movement of each ship is governed by its speed and course, both of which are affected by several factors described in this section. Players control the movement of the ships through the issue of movement orders during the Movement Order Phase. After movement orders are issued, the computer calculates the movement of each ship and displays the results in the Movement Summary.

2.1 SPEED

2.1.1 All Ships begin the game with a speed of 48.

2.1.2 Changes in a ship's speed do not occur instantaneously. At the completion of each turn the computer determines the difference between a ship's **actual speed** at the beginning of the turn and its **computed speed** at the end of the turn. The ship's speed for the following turn is then incremented (up or down) by 25 percent of the difference between the computed speed and the actual speed.

2.1.3 Actual speed is the speed that a ship moves during any turn. It is the speed reported in the Movement Summary.

2.1.4 Computed speed is the product of three variables:

1. Base speed
2. Sailset
3. Mast damage factor

2.1.5 Base speed is a function of Sailing Class/Rate and the point of sailing. Base speeds are given in Table 2.1-1.

2.1.6 Points of sailing refer to the heading of the ship relative to the wind. Points of sailing are illustrated in Figure 2.1-1.

2.1.7 Sailset refers to the amount of sail a ship is carrying. When sails are fully set, the sailset factor is 1.0. When battle sails are set, the sailset factor is 0.75.

2.1.8 The **mast damage factor** is a measure of the amount of damage to a ship's masts and sails. The factor decreases from an initial value of 1.0 as mast [4.4.3] damage is sustained.

EXAMPLE: Ship A is a 5th rate frigate sailing east with Battle Sails set. The wind is from the North. Ship A has lost 30% of its masts.

Base Speed (Table 2.1-1) = 224

Sailset Factor = 0.75

Mast Damage Factor = $(1 - .3) = .7$

Computed Speed = $224 \times .75 \times .7 = 118$

2.2 TURNING

2.2.1 Ships turn in the direction ordered by the player in the movement order phase.

2.2.2 In order to turn, a ship must have:

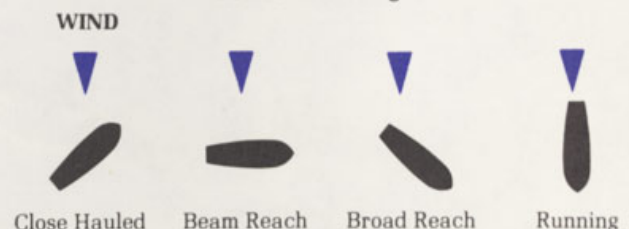
- (a) a speed of 48 or greater, and
- (b) a sail manning factor [2.3] of at least 0.5 (50%).

If condition (a) above (speed) is not met, the ship still has a 25% chance of executing an order to turn.

Table 2.1-1
Base Sailing Speeds

Point of Starting	Sailing Class/Rate		
	0/1 & 2	1/3 & 4	2/5 & 6
Close Hauled	100	120	132
Beam Reach	180	200	224
Broad Reach	200	224	252
Running	160	180	200

Figure 2.1-1
Points of Sailing



2.2.3 It costs 48 movement factors (meters) to execute a turn.

2.3 CREW SAIL MANNING FACTOR

2.3.1 The crew sail manning factor (CSMF) is a measure of the extent to which the crew manning of the sails is sufficient to maneuver the ship.

2.3.2 The crew sail manning factor is calculated as:

$$\frac{(\text{Number of Crew Assigned to Decks}) \times (\text{Crew Quality}) \times (5)}{\text{Hull Strength}}$$

and may never exceed a value of 1.0.

2.3.3 The effects of the CSMF are summarized below:

Ship Maneuver Effects of CSMF

Turning	If CSMF is less than 0.5 (50%) the ship will not turn.
Tacking	Tacking is not permitted if CSMF is less than 1.0 (100%).
Backing Sails	If CSMF is less than 0.75 (75%) the ship cannot back sails.
Changing Sailset	If CSMF is less than 0.75 (75%) the sailset cannot be changed.

2.4 TACKING

Tacking is a turning maneuver whereby the bow of the ship is brought across the wind thereby placing the ship on the opposite tack.

2.4.1 Ships are ordered to tack during the movement order phase. In order to tack a ship must meet the following preconditions:

- (a) have a speed of 48 or greater
- (b) be sailing close hauled
- (c) have a CSMF of 1.0 (100%)
- (d) have less than 25% mast damage.

Tacking orders will not be accepted for ships which do not meet these preconditions.

2.4.2 Two turns are required to complete a tack. On the first turn of the tack the ship turns directly into the wind. On the second turn of the tack the ship turns to close hauled on the opposite tack.

2.4.3 While executing a tack, all ships will have a nominal speed of 48.

2.4.4 New movement orders **cannot** be issued while executing a tack.

2.5 BACKING SAILS

Backing sails is a maneuver used to rapidly slow the forward motion of a ship.

2.5.1 Only ships which are sailing close hauled or on a beam reach may back sails.

2.5.2 For each turn that a back sail order is in effect, the ship's speed will be reduced by a value equal to:

$$80 \times \text{Mast Damage Factor}$$

until the ship's speed reaches zero.

3.0 GRAPPLING AND FOULING

Grappling and fouling may occur whenever two ships are within 120 meters of each other. Grappling is voluntary on the part of the players commanding the ships; however, fouling is determined probabilistically by the computer. Ships which are grappled or fouled cannot issue movement orders.

3.1 GRAPPLING

3.1.1 A ship can be **grappled to** only one other ship at a time.

3.1.2 A ship can be **grappled from** only one other ship at a time.

3.1.3 A ship cannot be **grappled to** one ship and **grappled from** another ship.

3.1.4 The probability of successfully grappling another ship is a function of the distance between the ships and the crew quality [5.4] of the ship attempting to grapple.

Distance Between Ships	Probability of Grappling
40 or less	1.00
75	0.54
100	0.40
120	0.33

EXAMPLE: Ship A has a crew quality of 1.5 and is a distance of 120 meters from Ship B. The probability of Ship A successfully grappling Ship B is $1.5 \times 0.4 = 0.6$.

3.2 FOULING

3.2.1 A ship may be fouled with only one other ship.

3.2.2 The probability of fouling increases as the distance between ships decreases.

Distance Between Ships	Probability of Fouling
10 or less	1.00
25	0.40
50	0.20
75	0.13
100	0.10
120	0.08

3.3 UNGRAPPLING

3.3.1 A ship may voluntarily release its grapples from another ship during the Ungrappling/Unfouling Phase.

3.3.2 A ship may attempt to ungrapple from another ship (i.e., remove the other ship's grapples). The probability of ungrappling is 0.5 times the crew quality [5.4] times the crew morale [5.3] divided by 100.

$$\frac{0.5 \times \text{Crew Quality} \times \text{Crew Morale}}{100} = \text{probability of ungrappling}$$

3.4 UNFOULING

3.4.1 A ship may attempt to unfoul from another ship during the Unfouling/Ungrappling Phase. If successful, both ships become unfouled.

3.4.2 The probability of unfouling is 0.1 times the crew quality [5.4] times the crew morale [5.3] divided by 100.

$$\frac{0.1 \times \text{Crew Quality} \times \text{Crew Morale}}{100} = \text{probability of unfouling}$$

4.0 FIRING

4.1 GUN CLASS

4.1.1 There are two classes of guns in **Clear for Action:** Long Guns and Carronades.

4.1.2 Gun class determines range attenuation (decreasing effectiveness). Figure 4-1 show range attenuation factors. See Case 4.4.1 for the effects of range attenuation on fire.

4.1.3 Within each class of gun in a ship's broadside, fire power points are determined from the tables in Appendix A or from the scenarios in Appendix B. Values for total broadside firepower and firepower from each class of guns are entered along with other ship characteristics discussed in Appendix A.

4.2 TYPE OF SHOT

4.2.1 Guns may be loaded with any of five different shots.

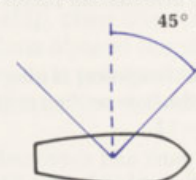
- Round Shot
- Double Round Shot
- Grape Shot
- Double Grape Shot
- Dismantling Shot

4.2.2 Type of shot affects range attenuation (Figure 4-1), reload time [4.6] and damage from fire (Table 4-2).

4.3 ANGLE OF FIRE

4.3.1 Each ship is divided into two firing sections on each side of the ship. Gun firepower points for each class of gun are allocated equally between the two sections.

4.3.2 Each broadside has a 45 degree arc of fire on either side of the broadside's centerline as illustrated below.



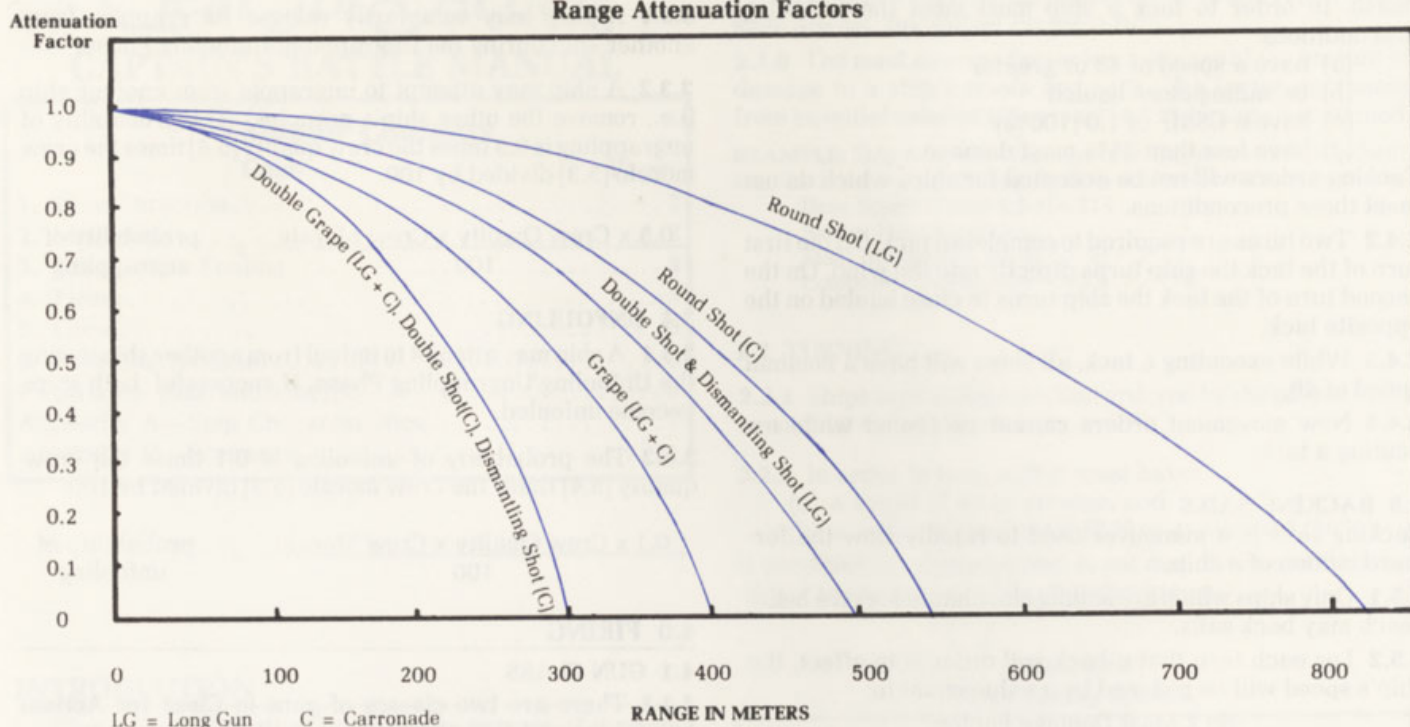
4.3.3 In order for a broadside to fire, the target must be within the arc of fire.

4.3.4 Ships which are grappled or fouled can always fire at each other regardless of the angle of fire.

4.4 EFFECTS OF FIRE

When a ship fires, the number of "hits" on the target's hull or rigging are determined for each class of gun firing and the type of shot being fired by the gun section. Damage is then allocated to different portions of the target ship and its crew. Results are reported in the damage section of the Ship Status Report.

Figure 4-1
Range Attenuation Factors



4.4.1 Hits for each class of gun in each firing section are determined by the following formula.

HITS = (RF) x (AF) x (GDF) x (RLF) x (FPP) x (RND(.25-1.0))
where:

RF = Range Attenuation Factor (Fig. 4-1, Table 4-2)

AF = Aspect Factor (Case 4.4.1.1)

GDF = Gun Damage Factor (Case 4.4.1.2)

RLF = Reload Factor (Case 4.6)

FPP = Gun Firepower Points for the class of gun firing (Case 4.1.3)

RND(.25-1.0) = Random Number between .25 and 1.0

4.4.1.1 The **aspect factor** ranges continuously from a value of 1.0 (straight broadside aspect) to 1.5 (perfect rake).

4.4.1.2 The **gun damage factor** measures the remaining or **effective** gun firepower points. It is a percentage equal to 100 minus the gun damage percentage reported in the Ships Status Report.

EXAMPLE: Ship A is firing round shot from its port bow section at Ship B. The range is 500 and the aspect factor is 1.2. Ship A has the following characteristics:

Long gun firepower—48

Carronade firepower—24

Gun damage to the port guns—28%

Port bow section reload factor—75%

From Figure 4-1, the range attenuation factors are:

Long guns—0.69

Carronades—0.24

Since one half of each class' firepower is allocated to each section, the long gun firepower for the bow section is $48/2 = 24$ and the Carronades firepower is $24/2 = 12$.

If the RND value for long guns and carronades were 0.6 and 0.7 respectively, the total HITS on Ship B from Ship A's port bow section would be:

Hits from Long Guns = $(0.69) (1.2) (1-.28) (.75) (24) (0.6) = 6.43$

Hits from Carronades = $(0.24) (1.2) (1-.28) (.75) (12) (0.7) = 1.30$

4.4.2 For each hit, damage is allocated to one or more of the ship areas listed in Table 4-2.

4.4.3 The damage factors listed in Table 4-2 are used in the following formulas to allocate damage from fire.

Hull Damage = (Hits) x (Hull Damage Factor)

Crew Casualties = $(\text{Hits}) \times (\text{Crew Casualty Factor}) \times (\text{Number of Effective Crew}) \div (\text{Hull Strength})$

Gun Damage = $(\text{Hits}) \times (\text{Gun Damage Factor}) \div (\text{Total Broadside Fire Points})$ (Expressed as percentage)

Mast Damage = $(\text{Hits}) \times (\text{Mast Damage Factor}) \div (\text{Hull Strength})$ (Expressed as percentage)

EXAMPLE: If fire from the port bow section in the previous example, had been directed against the hull of Ship B, the resulting damage would be determined as follows:

Damage factors from Table 4-2:

Hull = 1.0

Crew = 0.3

Gun = 0.1

Mast = 0.5

Hits = $6.43 + 1.3 = 7.73$ rounds to 7 hits

For purposes of this example, the following values for Ship B are assumed:

Hull strength = 400

Number of Effective Crew = 200

Total Broadside Firepower = 36

Hull Damage = $(7) \times (1.0) = 7$

Crew Casualties = $(7) \times (.3) \times (200/400) = 1.05$

Gun Damage = $(7) \times (.1) \div 36 = .019 = 1.9\%$

Mast Damage = $(7) (0.5) \div 400 = .00875 = .875\%$

Table 4-2
DAMAGE FACTORS

Firing at Hull				
	Hull	Crew Cas.	Gun	Masts
Shot*	1.0	0.3	0.1	0.5
Grape*	0.1	0.9	X	0.15
Dismantling Shot	0.125	0.6	X	0.15
Firing at Rigging				
	Hull	Crew Cas.	Gun	Masts
Shot*	0.1	0.1	X	1.0
Grape*	X	0.15	X	1.5
Dismantling Shot	X	0.3	X	3.0
X = No Effect *Double Shot does double damage				

4.5 FIRE FROM THE TOPS

Crew in the mast tops can fire at the crew on another ship.

4.5.1 Fire from the tops may only be directed against an enemy ship to/from which the firing ship is grappled or with which it is fouled.

4.5.2 Fire from the tops results in crew casualties on the target ship which are determined by the following formula:

$$\text{Crew Casualties} = \frac{(\text{CIT}) \times (\text{RND } 1-4)}{8}$$

where:

CIT = number of crew in the tops of the firing ship
RND(1-4) = random number between 1 and 4

4.6 RELOADING GUNS

4.6.1 The time required to reload a gun section is dependent on the following variables:

- The number of effective gun strength points in the section
- The type of gun being reloaded
- The number of crew assigned to guns on the side being loaded.
- The morale of the crew
- The type of shot being loaded
- The quality of the crew

4.6.2 Long Guns require 2 turns to reload. Carronades require 1 turn to reload. Both of the above are subject to the modifications of Cases 4.6.3-4.6.6.

4.6.3 Double shot and double grape require an additional turn to load.

4.6.4 The rate of reload is reduced if the **effective guns** (see Case 4.4.1.2) are not fully manned. Long guns require 2.25 crew per effective long gun strength point. Carronades require 1.25 crew per effective carronade strength point.

4.6.5 Reload time is decreased/increased by a factor equal to 1 divided by the crew quality.

4.6.6 Reload time is increased by a factor equal to 100 divided by the crew morale.

EXAMPLE: Ship A has just fired its port bow section. During reload, Ship A orders round shot to be loaded in the port bow section. The reload of the port bow section in the next turn's fire phase would be determined as follows assuming the listed ship characteristics.

Ship A Characteristics

Long Gun Firepower points = 24
Carronade Firepower Points = 12
Total Broadside Firepower = 36
Port Side Gun Damage = 25 percent
Crew Assigned to port guns = 60
Crew Quality = 1.5
Crew Morale = 88

- a) The number of **effective** gun strength points on the port side is:
(.75) x (24) = 18 Long Gun Strength Points
(.75) x (12) = 9 Carronade Strength Points
- b) The number of crew required to fully man these guns is:
(18) x (2.25) = 40.5 for the Long Guns
(9) x (1.25) = 11.25 for the Carronades
Therefore a total of 52 men are required. Since there are 60 men assigned to the port guns, the crew manning factor for the port guns is 1.0. Note that assigning crew in excess of those required does not decrease the reload time.
- c) Long gun reload is computed as:
 $\frac{(1 \text{ turn})}{(2 \text{ turns to load})} \times (1.0) \times (88/100) \times (1.5) \times (100\%) = 66\%$
- d) Carronade reload is computed identically except "1 turn to load" is used in the denominator of the first expression. This yields a value of 132 percent which is adjusted to 100 percent.
- e) The combined reload for the section is computed as the average of the long gun and carronade reloads weighted by their relative contributions to the broadside's total firepower.
 $(24/36) \times 66\% + 12/36 \times (100\%) = 77\% \text{ loaded}$



5.0 CREW

5.1 CREW FUNCTIONS

Crew may be assigned to any of 4 locations. The locations and functions performed at these locations are listed in the Crew Functions Table (Table 5-1).

5.2 CREW MOVEMENT

5.2.1 At the beginning of a game, crew are assigned to decks, port guns and starboard guns.

5.2.2 The number of crewmen who can move from one location to another in a turn is limited to the crew morale level times the crew quality [5.4].

5.2.3 Crew in the tops is limited to 10% of the initial crew complement.

Table 5-1
CREW FUNCTIONS

Locations	Functions Performed
Decks	Changing Sailset Turning Tacking Backing Sails Engaging in Melee
Guns (Port or Starboard)	Reloading Guns
Tops	Fire from the Tops

5.3 CREW MORALE

In Clear for Action, morale measures the willingness of the ship's crew to continue fighting and the effectiveness with which they perform certain functions. As a ship sustains damage, crew morale degrades and reduces crew effectiveness. If morale degrades below a certain level, the ship may surrender or STRIKE.

5.3.1 All ships begin the game with 100 morale points.

5.3.2 Morale decreases proportionally to damage to various parts of the ship, crew casualties and the number of opposing crew sections aboard the ship. The Morale Table (Table 5-2) lists the morale points associated with damage to various parts of the ship, crew casualties and opposing crew sections.

Table 5-2
MORALE TABLE

Damage	Morale Points
Hull	25
Crew Casualties	40
Gun Damage	20
Mast Damage	25
Captured Deck Sections	½ per opposing crew section

5.3.3 Crew morale affects gun reloading [4.6] and melee [6.2].

5.3.4 Morale is checked every turn. When a ship's morale drops below 50, the ship is in danger of striking. If, during a morale check, a random number between 1 and 50 exceeds a ship's current morale, the ship will strike [see also 7.0].

EXAMPLE: Ship A has the following damage and corresponding loss of morale points.

Damage	Lost Morale Points
Hull Damage = 20%	5 morale points
Gun Damage = 10%	2 morale points
Mast Damage = 20%	5 morale points
Crew Casualties = 30%	12 morale points
15 Enemy Crew Sections Aboard	7.5 morale points
Total 31.5 Morale Points	
Ship A's morale is $100 - 31.5 = 68.5$	

5.4 CREW QUALITY

5.4.1 Crew Quality is a measure of the relative effectiveness and efficiency with which a ship's crew performs functions listed in 5.4.2. Historically, crew quality between ships varied substantially depending on many factors including training, experience and nationality.

5.4.2 Crew Quality affects the following functions:

- Crew Sail Manning Factor [2.3]
- Gun Reloading [4.6.5]
- Crew Movement [5.2]
- Melee [6.2.4]

5.4.3 Table 5-3 lists **suggested** crew qualities for different nationalities and crew experience levels. These are suggested levels and players may vary the crew quality for an individual ship within the levels of 0.5 to 2.0 when designing a scenario.

Table 5-3
SUGGESTED CREW QUALITY

	Poor	Green	Average	Crack	Elite
American	1.1	1.3	1.6	1.8	2.0
English	1.0	1.2	1.5	1.6	1.8
French	0.6	0.8	1.0	1.2	1.5
Spanish	0.5	0.6	0.8	1.0	1.2
Dutch	1.0	1.2	1.4	1.5	1.6

6.0 BOARDING ACTIONS

Boarding actions are initiated by players attempting to capture an opposing player's ship through direct assault. Due to the heavy morale weighting of captured deck sections [5.3] a successful boarding action virtually guarantees the surrender of an opponent.

6.1 INITIATING/CONTINUING A BOARDING ACTION

6.1.1 In order to initiate and continue a boarding action the ships must be grappled or fouled with each other.

6.1.2 A ship may initiate/continue a boarding action against only one opposing ship at a time.

6.1.3 If ships become disengaged (i.e. not grappled and not fouled) then all boarders are automatically returned to their home ship.

6.2 MELEE COMBAT

During the Boarding Action Phase, melee combat can occur between opposing ships. Depending on their "orders," the crew of each ship moves and attacks adjacent opposing crews.

6.2.1 Movement and melee combat is conducted by individual crew sections consisting of 5 crewmen per section.

6.2.2 A ship's crew operating under a "REPEL" order will move and attack according to the following rules.

- Crew sections aboard their own ship will attack opposing crew sections on their own ship but will not attack opposing crew sections on the opposing ship.
- Crew sections aboard the opposing ship will not attack opposing crew sections.

6.2.3 A ship's crew operating under a "BOARD" order will move and attack according to the following rules:

- Crew sections aboard their own ship will attack opposing crew sections.
- Crew sections aboard their own ship will attempt to move (cross over) to the opposing ship and attack opposing crew sections.
- Crew sections on the opposing ship will attack opposing crew sections.
- Crew sections aboard their own ship will attack opposing crew sections on the opposing ship.

6.2.4 Melee combat between opposing crew sections is resolved by computing a melee ratio equal to:

$$\frac{(\text{Ship A Morale}) \times \sqrt{(\text{Ship A Crew Quality}) \times \text{RND}(1-2)}}{(\text{Ship B Morale}) \times \sqrt{(\text{Ship B Crew Quality}) \times \text{RND}(1-2)}}$$

Results listed below are then applied based on the melee ratio.

Melee Ratio	Result
> 1.75	Ship A crew section wins Ship B crew section eliminated
< 0.7	Ship B crew section wins Ship A crew section eliminated

Winning sections occupy the space vacated by their eliminated opponent.

7.0 STRIKING (SURRENDERING)

Wooden sailing ships rarely sank as a direct result of combat; rather, they were battered into submission by their opponent's gunfire or captured in a boarding action. "Striking" is a term which describes the act of hauling down a ship's colors which was the means of signaling surrender.

7.1 STRIKING CONDITIONS

7.1.1 A ship will strike if any one of the following conditions occurs.

7.1.1.1 75 percent of a ship's deck sections are captured by opposing crew sections.

7.1.1.2 A random number between 0 and 50 exceeds the ship's crew morale during the morale check phase.

7.1.1.3 A random number between 0 and 0.5 exceeds the ratio of the ship's crew casualties and the total crew complement (i.e. after a ship has sustained 50 percent crew casualties, it is in danger of striking).

7.1.2 If another ship is grappled or fouled with a ship when it strikes, the other ship becomes ungrappled/unfouled automatically.

7.2 TREATMENT OF STRUCK SHIPS

7.2.1 A struck ship is essentially out of the game. Specifically:

7.2.1.1 It cannot move or fire.

7.2.1.2 It cannot grapple other ships.

7.2.1.3 It cannot engage in melee.

7.2.1.4 It does not receive a Ship Status Report.

7.2.2 Other ships can become temporarily fouled with a struck ship (one turn).

APPENDIX A

SHIP CHARACTERISTICS



U.S.S. Constitution

INTRODUCTION

Each ship is characterized by 8 values or characteristics which are discussed under the heading of SHIP CHARACTERISTICS. The Ship Characteristics Entry Sheet (SCES), shown herein as Figure A-1, is used to record the unique characteristics of each ship and other information for convenient entry during the **Game Preliminaries**.

Players using the scenarios in Appendix B need not prepare a SCES. Players designing their own scenarios should follow the instructions given under SCENARIO DESIGN. Tables A-1 and A-2 are provided to assist players in designing their own scenarios. The ships listed in Table A-1 are representative of their rate and nationality; however, players should not be unduly constrained by this table. Rather, it should be used as a guideline. **Clear for Action** is intentionally designed to give players the flexibility to use historical and/or "what if" ships, ship configurations and battle situations.

SHIP CHARACTERISTICS

1. **Nationality—Clear for Action** recognizes three nationalities which are coded as follows:

Code	Nationality
1	British
2	French
3	American

Players may use ship characteristics of other nations (see Table A-1); however, these ships **must** be assigned one of the nationality codes above which is **different** from the nationality they are fighting and **identical** to other allied ships. For example, if a Spanish ship is fighting with a French ship against the British, the Spanish ship must be assigned a nationality code of 2.

2. **Sailing Class** determines how fast a ship will sail (see Table 2.1-1). Sailing class is determined by a ship's rate.

Sailing Class	Rate
0	First & Second
1	Third & Fourth
2	Fifth & Sixth

3. **Hull Strength** characterizes the amount of damage a ship can sustain and the protection from fire offered to the ship's crew. Hull strength values given in Table A-1 are average values. In designing scenarios you may wish to adjust hull strength values ($\pm 20\%$ maximum) for ships of superior/poor construction.

4. **Crew** refers to the number of crewmen aboard the ship. Typical crew complements may be obtained from Table A-1.

5. **Crew Quality** is discussed in Case 5.4. Historically, Crew Quality varied substantially and this variation is reflected in the Suggested Crew Quality Table (Table 5-3). You should assign Crew Quality values within the guidelines provided by the Crew Quality Table. Crew Quality may be used to compensate when inexperienced players are pitted against more experienced players.

6. **Total Broadside Firepower** is a measure of the "weight of metal" a ship could fire in one broadside. It is the sum of Long Gun and Carronade firepower (7 and 8 below) Total Broadside Firepower values for standard ships may be obtained from Table A-1.

7. **Long Gun Firepower** is a measure of the "weight of metal" fired by the Long Guns in one broadside. Value for standard ships may be obtained from Table A-1. If players are using non-standard ships, they should refer to Table A-2 to compute the value of a ship's broadside's Long Gun Firepower.

8. **Carronade Firepower** is the same as for Long Gun Firepower.

EXAMPLE: Ship A carries the following Armament:

- 28 18-pounder long guns
- 2 12-pounder long guns
- 16 32-pounder carronades

To determine the gun firepower on a broadside divide the number of guns in half and multiply by the values in Table A-2.

Type of Gun	Number of Guns per Broadside	Values from Table A-2	Firepower Value
18 pounder long guns	14	3.0	42
12 pounder long guns	1	2.0	2
32 pounder carronades	8	5.0	40

Long Gun Firepower = $42 + 2 = 44$

Carronade Firepower = 40

Total Broadside Firepower = $44 + 40 = 84$

SCENARIO DESIGN

1. Select ship names (up to 6 characters) and enter on SCES.

2. Determine ship characteristics and enter on SCES. On the Atari version of **Clear for Action**, players may select one of the standard ships in Table A-1 and the ship characteristics will be automatically entered during the Ship Data Entry Phase.

3. Determine initial heading of each ship using the codes given below:

- | | |
|-------------|-------------|
| 0-North | 4-South |
| 1-Northeast | 5-Southwest |
| 2-East | 6-West |
| 3-Southeast | 7-Northwest |

Note that ships cannot begin the game sailing directly into the wind.

4. Determine the starting X and Y coordinates of each ship and enter on SCES. Note that the X,Y coordinates are based on the ground scale of meters.

Figure A-1

SHIP CHARACTERISTICS ENTRY SHEET

WIND DIRECTION _____

SHIP DATA

POSITION DATA

Ship No.	Ship Name (up to 6 characters)	Nationality	Sailing Class	Hull Strength	Crew Quality	Total Broadside Firepower	Long Gun Firepower	Carronade Firepower	"X" Coordinate	"Y" Coordinate	Course	Joy-stick No.
1												
2												
3												
4												
5												
6												
7												
8												

TABLE A-1 SHIP CHARACTERISTICS

ENGLAND										
Nationality = 1					Crew Quality = 1.5					
Standard Ship Number	Rate	No. Guns	Armament	Sailing Class	Hull Strength	Crew Complement	Total Broadside Firepower Points	Long Gun Firepower Points	Carronade Firepower Points	
1	1	108	32/32#, 34/24#, 34/18#, 8/12#, 12/32#C, 2/18#C	0	1560	900	240	203	33	
2	1	104	30/32#, 30/24#, 44/12#, 2/68#C	0	1300	850	189	179	10	
3	1	100	28/32#, 28/24#, 44/12#, 2/32#C, 6/18#C	0	1300	850	184	170	14	
4	2	98	28/32#, 30/18#, 40/12#, 2/32#C, 6/18#C	0	1275	820	169	155	14	
5	3	62	28/32#, 34/18#, 20/32#C, 6/18#C	1	1040	670	180	121	59	
6	3	60	28/32#, 30/18#, 2/12#, 16/32#C, 6/18#C	1	960	620	166	117	49	
7	3	74	28/32#, 30/24#, 16/9#, 2/32#C, 6/24#C	1	960	635	159	142	17	
8	3	64	26/24#, 26/18#, 12/9#	1	830	550	100	100	0	
9	4	28	28/18#, 26/32#C	1	700	340	107	42	65	
10	4	30	22/24#, 2/12#, 6/6#, 6/24#C, 4/12#C	1	650	350	85	69	16	
11	4	38	26/24#, 12/12#, 6/42#C	1	570	350	83	64	19	
12	5	30	28/18#, 2/12#, 16/32#C	2	490	265	84	44	40	
13	5	30	26/18#, 4/9#, 12/32#C	2	470	255	72	42	30	
14	5	32	26/12#, 6/6#	2	420	230	29	29	0	
15	6	28	24/9#, 4/6#	2	360	210	20	20	0	
number of guns/size of gun # = pounders C = carronades										

FRANCE

Nationality = 2

Crew Quality = 1.0

Standard Ship Number	Rate	No. Guns	Armament	Sailing Class	Hull Strength	Crew Complement	Total Broadside Firepower Points	Long Gun Firepower Points	Carronade Firepower Points
16	1	116	32/36#, 34/24#, 34/12#, 16/8#, 6/24#C	0	1600	1100	214	202	12
17	1	112	34/36#, 34/24#, 34/18#, 10/12#, 18/24#C	0	1600	1100	258	222	36
18	1	110	30/36#, 32/24#, 32/12#, 16/8#, 4/24#C	0	1480	1030	198	190	8
19	3	80	30/36#, 32/24#, 18/8#, 4/24#C	1	1080	800	167	159	8
20	3	80	30/36#, 32/24#, 18/12#, 12/24#C	1	1080	800	188	164	24
21	3	70	28/36#, 30/18#, 12/8#, 10/24#C	1	1000	700	151	131	20
22	3	74	28/36#, 30/18#, 16/8#, 4/24#C	1	1000	700	142	134	8
23	4	44	30/24#, 14/8#, 8/24#C	1	600	400	86	70	16
24	4	44	28/18#, 16/8#, 8/24#C	1	600	370	70	54	16
25	5	40	28/18#, 12/8#, 4/24#C	2	540	320	59	51	8
26	5	46	26/18#, 20/8#	2	540	350	54	54	0
27	5	36	14/12#, 12/8#, 10/6#	2	480	250	28	28	0
28	5	34	26/12#, 8/6#, 2/36#C	2	460	300	35	30	5
29	5	32	26/12#, 6/6#, 4/36#C	2	430	260	40	29	11
30	6	24	24/8#, 6/36#C	2	320	230	34	18	16

UNITED STATES

Nationality = 3

Crew Quality = 1.6

Standard Ship Number	Rate	No. Guns	Armament	Sailing Class	Hull Strength	Crew Complement	Total Broadside Firepower Points	Long Gun Firepower Points	Carronade Firepower Points
31	3	62	62/32#, 24/32#C	1	1030	640	215	155	60
32	4	32	30/24#, 2/18#, 22/32#C	1	610	440	118	63	55
33	5	28	28/18#, 16/32#C	2	500	350	82	42	40
34	5	6	6/12#, 40/32#C	2	440	320	106	6	100
35	6	26	26/12#, 12/32#C	2	390	280	56	26	30

SPAIN

Nationality = 2

Crew Quality = 0.8

Standard Ship Number	Rate	No. Guns	Armament	Sailing Class	Hull Strength	Crew Complement	Total Broadside Firepower Points	Long Gun Firepower Points	Carronade Firepower Points
36	1	130	30/36#, 32/18#, 32/12#, 32/8#, 4/4#	0	1690	1100	188	188	0
37	1	112	30/36#, 32/18#, 32/12#, 18/8#	0	1450	900	175	175	0
38	3	80	30/36#, 32/18#, 18/8#	1	1040	660	143	143	0
39	3	72	30/36#, 32/24#, 10/8#, 10/36#C, 6/24#C	1	1040	660	192	153	39
40	3	72	58/24#, 4/8#, 10/36#, 4/24#C	1	960	600	158	119	39
41	3	74	28/24#, 30/18#, 16/8#	1	960	600	113	113	0
42	5	28	26/18#, 2/8#, 12/24#C	2	520	280	65	41	24
43	5	34	26/12#, 8/6#	2	440	275	30	30	0

NETHERLANDS

Nationality = 3

Crew Quality = 1.4

Standard Ship Number	Rate	No. Guns	Armament	Sailing Class	Hull Strength	Crew Complement	Total Broadside Firepower Points	Long Gun Firepower Points	Carronade Firepower Points
44	3	74	28/36#, 28/18#, 18/12#	1	960	550	137	137	0
45	3	66	26/36#, 26/18#, 14/8#	1	830	450	120	120	0
46	3	68	26/24#, 26/18#, 16/8#	1	830	450	93	93	0
47	4	56	24/18#, 24/12#, 8/8#	1	650	360	78	78	0
48	4	44	26/36#, 18/18#	1	570	300	78	78	0
49	5	32	26/12#, 6/6#, 4/24#C	2	470	250	37	29	8
50	5	32	24/12#, 8/6#	2	420	220	28	28	0
51	6	26	24/8#, 2/6#	2	340	180	19	19	0

DENMARK

Nationality = 3

Crew Quality = 1.2

Standard Ship Number	Rate	No. Guns	Armament	Sailing Class	Hull Strength	Crew Complement	Total Broadside Firepower Points	Long Gun Firepower Points	Carronade Firepower Points
52	3	84	30/36#, 32/24#, 22/12#	1	1040	670	168	168	0
53	3	74	28/36#, 30/18#, 16/8#	1	960	600	94	94	0
54	3	60	24/24#, 24/12#, 12/8#	1	780	500	81	81	0
55	6	30	26/12#, 4/6#, 6/12#C	2	420	225	34	28	6
56	6	20	20/36#	2	260	260	55	55	0

TABLE A-2

FIREPOWER POINTS PER GUN ON A BROADSIDE	
Gun Size	Firepower Points
68 pounder	10.0
42 pounder	6.5
36 pounder	5.5
32 pounder	5.0
24 pounder	4.0
18 pounder	3.0
12 pounder	2.0
8-9 pounder	1.5
6 pounder	1.0
4 pounder	0.75
3 pounder	0.5

Appendix B: The SCENARIOS

1. LADY LUCK FROWNS

Thames (Br.) vs Uranie (Fr.)

I. 24 October 1793 1015 hours Off Brest

HMS Thames, while watching Brest, was beset by a much larger French frigate. Undaunted, Captain Cotes elected to fight upon discovering the Frenchman was the faster. The battle commenced with Uranie's first broadside at 1020 hours and raged until 1420 hours when Uranie raked the Thames and then attempted to board across her quarter. This proved unsuccessful and with 60 casualties and a dead Captain, the Uranie hauled off. The Thames was virtually dismasted with 11 dead and 23 wounded. About an hour later, three other French frigates and a corvette arrived on the scene and after one broadside, the Thames was forced to strike—a gallant defense in vain.

II. Ship Data

32 HMS Thames—Capt. Cotes

5th Rate
656 Tons
187 Crew
Forecastle: 2 x 6#LG, 2 x 24#C
Main Deck: 26 x 12#LG
Quarterdeck: 4 x 6#LG, 4 x 24#C

40 Uranie

5th Rate
1100 Tons
320 Crew
Forecastle: 2 x 8#LG, 2 x 36#C
Main Deck: 28 x 18#LG
Quarterdeck: 10 x 8#LG, 2 x 36#C

III. Game Data

Wind Direction: North

Ship	Nat'l	Sail Class	Hull St'gth	Crew	Crew Qual	TBFP	LGFP	CFP	HDG	"X"	"Y"
Thames	1	2	360	187	1.6	41	29	12	1	0	0
Uranie	2	2	500	320	1.0	61	50	11	1	0	700

2. AN EPIC STRUGGLE

Blanche (Br.) vs Pique (Fr.)

I. 5 January 1795 0020 hours Outside Guadaloupe, West Indies

The Blanche, Capt. Robert Faulknor, showed herself off shore on the afternoon of the 4th. Capt. Conseil of the Pique, confident of victory, sailed that evening to do battle. Shortly after midnight the action began and by 0100 the ships were running before the wind under all plain sail within pistol shot range. After some hour and a half of cannonade, the Blanche pulled ahead to cross the Pique's bow, but her main and mizen masts went overboard and she instead fell aboard the Pique and fouled. Capt. Faulknor and the 2nd Lt., David Milne, lashed the bowsprit of the Pique to the Blanche's capstan. Faulknor was shot dead in doing so. After several failed boarding attempts, the Pique broke free and drifted astern. The ships again fouled and this time, the Pique's bowsprit was lashed to the stump of Blanche's mainmast. Blanche started running before the wind towing the Pique astern of her. Every attempt by Pique's crew to cut the lashing was thwarted by the fire of Blanche's marines lined on the quarterdeck. Blanche's 1st Lieutenant, Lt. Watkins, ordered ports to be made for two 12# long guns in the stern by blowing holes in the stern frame. Subjected to this raking fire for almost two hours, the Pique, a dismasted wreck, struck her colors.

Casualties on the Pique were appalling with 76 killed and 110 wounded including Capt Conseil mortally. Blanche suffered 7 killed and 23 wounded.

II. Ship Data

32 HMS Blanche—Capt. Robert Faulknor

5th Rate
722 Tons
198 Crew
Forecastle: 2 x 6#LG, 2 x 24#C
Main Deck: 26 x 12#LG
Quarterdeck: 4 x 6#LG, 4 x 24#C

36 Pique—Capt. Conseil

5th Rate
906 Tons
279 Crew
Forecastle: 2 x 6#LG, 2 x 36#C
Main Deck: 26 x 12#LG
Quarterdeck: 8 x 6#LG, 2 x 36#C

III. Game Data

Wind Direction: West

Ship	Nat'l	Sail Class	Hull St'gth	Crew	Crew Qual	TBFP	LGFP	CFP	HDG	"X"	"Y"
Blanche	1	2	420	198	1.5	41	29	12	2	0	400
Pique	2	2	480	279	1.0	42	31	11	2	0	0

3. THE PHANTOM VICTORY

Ville de Milan (Fr.) vs Cleopatra (Br.)

I. 17 February 1805 — 1400 hours In the North Atlantic

HMS Cleopatra, Capt. Sir Robert Laurie, sighted the Ville de Milan, Capt. M. Renaud, on the morning of 16 February and immediately gave chase. The Ville de Milan was carrying urgent dispatches for Villeneuve's fleet from Napoleon and had been ordered to avoid any engagement. Capt. Laurie, surmising that the enemy was probably carrying dispatches, was determined to bring the Milan to action despite the Frenchman's obvious superiority. In the extremely light winds, the Cleopatra consistently gained on the heavier Milan only to have a vital piece of rigging damaged by the 8 pound chase guns which had been placed in the Milan's stern to discourage pursuit.

At 1030 on the 17th, the Ville de Milan shortened sail to await the inevitable action which began at 1430 hours and continued until just after 1700 when the two vessels, heavily damaged aloft, collided. The Cleopatra attempted to board but was repulsed as was the Milan's first attempt. A second attempt by the Milan at 1715 carried the Cleopatra. Cleopatra lost 22 killed and 36 wounded, including all officers but the Captain. The Milan had 10 killed and 20 wounded including her Captain. Both ships were virtually dismasted.

Captain Laurie had tried to dismast the Frenchman for a reason. England controlled the seas. On the morning of 23 February, with both ships in company with but jury-rigged masts, HMS Leader (50) arrived on the scene, and easily catching both vessels, retook Cleopatra and captured the Milan.

II. Ship Data

28 HMS Cleopatra—Capt. Sir Robert Laurie
5th Rate
689 Tons
200 Crew
Forecastle: 2 x 6#LG, 2 x 24#C
Main Deck: 26 x 12#LG
Quarterdeck: 8 x 24#C

44 Ville de Milan—Capt. M. Renaud
5th Rate
1097 Tons
350 Crew
Forecastle: 2 x 8#LG, 2 x 36#C
Main Deck: 26 x 18#LG
Quarterdeck: 16 x 8#LG

III. Game Data

Wind Direction: West

Ship	Nat'l	Sail Class	Hull St'gth	Crew	Crew Qual	TBFP	LGFP	CFP	HDG	"X"	"Y"
Cleopatra	1	2	380	200	1.6	47	27	20	2	0	200
Ville de Milan	2	1*	540	350	1.1	58	52	6	2	600	0

*To give Cleopatra a speed advantage

4. STARTING A TRADITION

Nymphe (Br.) vs. Cleopatre (Fr.)

I. 18 June 1793 — 0610 hours In the English Channel off Start

At dawn the HMS Nymphe, Capt. Edward Pellew, sighted the Frenchman and immediately gave chase. By 0600, the Cleopatre, Capt. Mullan, decided to shorten sail and await the Nymphe. As the Nymphe came up, Capt. Mullan gave her three cheers and saluted as did Pellew. By 0615 the Nymphe was on the Cleopatre's starboard quarter and with both ships running before the wind, the action commenced at pistol shot range. Shortly before 0700, the Cleopatre's wheel was shot away and she fell abroad Nymphe. Pellew led his boarders across and Cleopatre struck. The Nymphe had 23 killed and 27 wounded. Cleopatre suffered 63 casualties including Capt. Mullan who was killed. This was the first in a long string of victories for Pellew, one of England's greatest Captains.

II. Ship Data

36 HMS Nymphe—Capt. Edward Pellew
5th Rate
937 Tons
240 Crew
Forecastle: 2 x 6#LG
Main Deck: 26 x 12#LG
Quarterdeck: 8 x 24#C

40 Cleopatre—Capt. Mullan
5th Rate
913 Tons
320 Crew
Forecastle: 2 x 6#LG, 2 x 36#C
Main Deck: 28 x 12#LG
Quarterdeck: 6 x 6#LG, 2 x 36#C

III. Game Data

Wind Direction: West

Ship	Nat'l	Sail Class	Hull St'gth	Crew	Crew Qual	TBFP	LGFP	CFP	HDG	"X"	"Y"
Nymphe	1	2	400	240	1.5	43	27	16	2	0	0
Cleopatre	2	2	380	320	1.0	43	32	11	2	200	150

5. ACCEPTING THE ODDS

Dido & Lowestoft (Br.) vs Minerve & Artemise (Fr.)

I. 24 June 1795 0815 hours Off Toulon

On the 23rd of June, Admiral Hotham detached Dido, Capt. Towry, and Lowestoft, Capt. Middleton, to ascertain if the Toulon fleet had put to sea. Early on the 24th, Minerve, Capt. Perree, and Artemise sailed from Toulon to scout the British fleet. Spotting the English frigates and realizing they were superior in force, the French closed to engage. Minerve fired the first broadside at Dido around 0820. Dido did not return fire until 0830. Shortly thereafter, Minerve rammed the Dido and attempted to board. Successive boarding attempts by the Minerve failed and eventually the ships broke free, both heavily damaged aloft, and ran along side each other at no more than 10 yards range. At this time, the Lowestoft raked the Minerve's unengaged port bow from some 50 yards, and shortly thereafter, all three of Minerve's masts went down.

For some reason, Artemise fired only one broadside at Lowestoft and ran. She fired another broadside at Dido while passing and headed out to sea, leaving Minerve to her fate. Capt. Towry signaled Capt. Middleton to chase Artemise but having lost his mizzen topgallant, he could not catch her and returned to rake the Minerve's port quarter causing her to strike.

Dido suffered 6 killed and 15 wounded while Lowestoft had but 3 casualties. Minerve had 20 casualties including the Captain wounded.

II. Ship Data

28 HMS Dido—Capt. George H. Towry

6th Rate Forecastle: 2 x 6#LG, 2 x 24#C
595 Tons Main Deck: 24 x 9#LG
193 Crew Quarterdeck: 2 x 6#LG, 6 x 24#C

30 HMS Lowestoft—Capt. Robert G. Middleton

5th Rate Forecastle: 2 x 6#LG, 2 x 24#C
717 Tons Main Deck: 26 x 12#LG
210 Crew Quarterdeck: 2 x 6#LG, 6 x 24#C

40 Minerve—Capt. M. Perree

5th Rate Forecastle: 2 x 8#LG, 2 x 36#C
1102 Tons Main Deck: 28 x 18#LG
318 Crew Quarterdeck: 10 x 8#LG, 2 x 36#C

36 Artemise—Capt. M. Charbonnier

5th Rate Forecastle: 2 x 6#LG, 2 x 26#C
900 Tons Main Deck: 26 x 12#LG
290 Crew Quarterdeck: 8 x 6#LG, 2 x 36#C

III. Game Data

Wind Direction: North

Ship	Nat'l	Sail Class	Hull St'gth	Crew	Crew Qual	TBFP	LGFP	CFP	HDG	"X"	"Y"
Dido	1	2	330	193	1.6	36	20	16	2	200	800
Lowestoft	1	2	390	210	1.5	44	28	16	2	0	800
Minerve	2	2	540	318	1.0	62	51	11	1	400	0
Artemise	2	2	480	290	0.8	42	31	11	1	200	0

6. A BLOT ON THE RECORD

Ambuscade (Br.) vs Baionnaise (Fr.)

I. 14 December 1798 0900 Off Bordeaux

This is a good scenario for "smaller" ship actions and represents one of the few instances where a British ship was taken by an equivalent Frenchman. The Ambuscade had captured a French brig and had transferred to it the ship's 2nd Lt. and a prize crew. While the prize sailed to England, the Ambuscade sailed to Bordeaux, where it expected to meet the 32-gun frigate Stag.

At 0700, sails were sighted, and thinking it was the Stag, the captain went off to breakfast. Two hours later, when the ship hauled to wind two miles away, they realized their error too late—it was the French ship Baionnaise. According to one account, the British crew became disheartened by the bursting of a gun on the main deck which wounded 11 seamen. With her Captain and most of the other officers slain, the Ambuscade succumbed to a successful boarding action lead by a detachment of French marines.

II. Ship Data

32 HMS Ambuscade—Capt. Henry Jenkins

5th Rate Forecastle: 2 x 6#LG, 2 x 24#C
Main Deck: 26 x 12#LG
190 Crew Quarterdeck: 4 x 6#LG, 6 x 24#C

30 Baionnaise—Lt. de vaisseau Edmond Richer

6th Rate Forecastle: 2 x 6#LG, 2 x 32#C
Main Deck: 24 x 8#LG
281 Crew including Quarterdeck: 4 x 6#LG, 2 x 32#C
31 Marines

III. Game Data

Wind Direction: North

Ship	Nat'l	Sail Class	Hull St'gth	Crew	Crew Qual	TBFP	LGFP	CFP	HDG	"X"	"Y"
Ambuscade	1	2	420	190	1.2	45	29	16	2	0	0
Baionnaise	2	2	390	281	1.2	31	21	10	2	100	600

7. DEFENDING THE HONOR OF THE SERVICE

Leander (Br.) vs Genereux (Fr.)

I. 18 August 1798 0900 hours enroute from Alexandria to Gibraltar with Nelson's dispatches

This scenario provides a definite challenge for the British player. Five days after Nelson's victory over the French fleet in Aboukir Bay, the Leander sailed from Alexandria with the Admiral's dispatches. At daybreak on the 18th of August, Captain Boulden Thompson, her commander, sighted the Genereux, one of the two French ships that escaped from Nelson's fleet. Thompson tried to outdistance the superior ship, but finding the Genereux gaining on him, he shortened sail.

For an hour and a half the two ships exchanged broadsides until Genereux closed to board the Leander whose rigging was so damaged as to render her unmanageable. Numerous attempts to board were repulsed by the Leander's crew as the two ships lay side by side grinding against each other and continuing to fire their cannon. Failing to board, the Genereux disengaged and eventually maneuvered to a position across the Leander's stern. Thompson, having lost fully one third of his crew and realizing the hopelessness of his situation surrendered after close to a six hour struggle.

Upon his eventual return to England, Thompson was tried by court martial whose verdict was that "The gallant and almost un-

precedented defense of Captain Thompson of H.M.'s late ship Leander against so superior a force as that of the Genereux is deserving of every praise his country and this court can give, and that his conduct, as well as that of his officers and men, reflects not only the highest honor on himself and them, but on their country at large."

II. Ship data

50 HMS Leander—Capt. Thompson

4th Rate First Battery: 22 x 24#LG
Second Battery: 22 x 12#LG
282 Crew Main Deck: 6 x 6#LG, 6 x 24#C, 4 x 12#C

74 Genereux

3rd Rate First Battery: 28 x 36#LG
Second Battery: 30 x 24#LG
936 Crew Main Deck: 14 x 8#LG, 6 x 36#C

III. Game Data

Wind Direction: North

Ship	Nat'l	Sail Class	Hull St'gth	Crew	Crew Qual	TBFP	LGFP	CFP	HDG	"X"	"Y"
Leander	1	1	675	282	1.6	83	69	14	6	0	0
Genereux	2	1	1040	936	1.0	164	147	17	5	300	500

THE UNDECLARED WAR

8. Constellation (Am.) vs Insurgente (Fr.)

9. Constellation (Am.) vs Vengeance (Fr.)

I. 9 February 1799 1200 Off Nevis Island 1 February 1800 0700 Caribbean waters

Not everyone is aware that in the closing years of the 18th Century, a state of hostilities existed between the United States and the new French republic ruled by the infamous Directory. Hard feelings developed between the two governments. French warships were refused permission to bring prizes into American ports and at America's insistence the French minister, Citizen Genet, was recalled for certain unacceptable activities. Events culminated in the "XYZ Affair" when unnamed representatives of France demanded bribes before agreeing to negotiate. The often misquoted phrase "Millions for defense, but not one cent for tribute," arose from this incident, but more importantly, the conflict with France led to the creation of the U.S. Navy Department with Benjamin Stoddert as its first Secretary.

Two of the most notable actions of this undeclared war were fought by the USS Constellation under the command of Captain Thomas Truxtun. On February 9, 1799, this powerful ship engaged the Insurgente off Nevis Island. The Constellation approached the French frigate through a storm of shot aimed at the rigging in the old French tradition. Not until the ships were within pistol shot range did Truxtun give the command to fire. With cool precision, the American pounded the Frenchman while maneuvering ahead to deliver devastating raking fire. The Insurgente proved no match for the Constellation and as the American ship swung around the Insurgente's other side and prepared to deliver a stern rake, the Tricolors were hauled down.

Almost a year later on February 1, 1800, Constellation encountered a ship more her match. The Vengeance, loaded with a valuable cargo of spices, took to her sails to avoid combat. After more than 24 hours of pursuit, Constellation drew within cannon range. In the opening exchanges, each ship suffered heavily aloft and maneuvering was soon out of the question. For five hours, the two ships wallowed side by side, blasting away at pistol shot range. Twice the French captain hauled down his colors, but both times the gesture was hidden by the smoke. Finally, Constellation's mainmast went over, rendering the American ship unmaneuverable. Taking advantage of the situation, Vengeance fled, her hull a sieve and over half her crew dead or wounded. Just short of Curacao she sank in shallow water. Constellation made Jamaica under jury rig.

II. Ship Data

32 USS Constellation—Capt. Thomas Truxtun

4th Rate Gun Deck: 30 x 24#LG
440 Crew Main Deck: 2 x 18#LG, 22 x 32#C

36 Insurgente—Capt. M. Barreaut

5th Rate Forecastle: 2 x 6#LG, 2 x 36#C
Main Deck: 26 x 12#LG
250 Crew Quarterdeck: 8 x 6#LG, 4 x 36#C

44 Vengeance—Capt. F.M. Pitot

4th Rate Gun Deck: 30 x 24#LG
469 Crew Main Deck: 14 x 8#LG, 8 x 24#C

III. Game Data

Wind Direction, starting courses and positions at players' choice

Ship	Nat'l	Sail Class	Hull St'gth	Crew	Crew Qual	TBFP	LGFP	CFP	HDG	"X"	"Y"
Constellation		STANDARD SHIP #32									
Insurgente	2	2	480	250	1.2	48	31	17			
Vengeance	2	1	600	469	1.2	87	71	16			

10. OLD IRONSIDES

Constitution (Am) vs Guerriere (Br)

I. 19 August 1812 1500 hours off the coast of Nova Scotia

Captain James Dacres of HMS Guerriere was not popular with American seamen. He and his ship were notorious for the seizing of ships and the impressment of seamen who might be British—a practice which was one of the principal causes of the War of 1812. Prior to the war, Dacres had boasted, in the salons of Baltimore, that he would wager a fine hat to any American Captain who thought that his ship could contend with the Guerriere for a quarter of an hour. The opportunity to make good his boast presented itself on the afternoon of August 19, 1812 when a frigate was spotted to the north—a frigate which came on so boldly that Dacres concluded that it could not be an American ship. The ship was the USS Constitution commanded by Captain Isaac Hull.

Constitution held her fire until she was close upon the Guerriere. Constitution's first broadside rocked the Guerriere and shortly thereafter the British ship's mizzenmast went by the board. The condition of the British ship continued to deteriorate as the accurate American fire smashed into her hull and brought down more rigging. Totally dismasted, unmaneuverable and facing a rake from the Constitution, Dacres ordered the British colors hauled down.

Captain Dacres, himself painfully wounded, came aboard the Constitution and proffered his sword to Captain Hull. "No, no, Captain," Hull said, "I'll not take a sword from one who knows so well how to use it. But—I'll trouble you for that hat."

Guerriere was so badly battered that she could not be salvaged. She was set afire and abandoned. The real answer to Constitution's victory lay not so much in her slight edge in broadside firepower but in the accurate fire of her well drilled gunners and the stout live oak planking on her sides which earned her the nickname of "Old Ironsides."

II. Ship Data

32 USS Constitution—Capt. Isaac Hull

4th Rate Gun Deck: 30 x 24#LG
476 Crew Main Deck: 2 x 18#LG, 22 x 32#C

26 HMS Guerriere—Capt. James Dacres

4th Rate Gun Decks: 22 x 24#LG
263 Crew Main Deck: 4 x 18#LG, 22 x 32#C

III. Game Data

Wind Direction: North

Ship	Nat'l	Sail Class	Hull St'gth	Crew	Crew Qual	TBFP	LGFP	CFP	HDG	"X"	"Y"
Constitution	3	1	610	476	1.7	118	63	55	4	100	800
Guerriere	1	1	570	263	1.6	105	50	55	4	0	0

11. THE DUEL

Shannon (Br.) vs Chesapeake (Am.)

I. 1 June 1813 1750 hours off Boston Harbor

The gunners of Captain Philip Broke's Shannon were probably the best in the British Navy. Broke had commanded the Shannon for seven years, drilling his crew incessantly often in violation of Admiralty orders. The Chesapeake, a fine ship ably commanded by James Lawrence, had had a recent turnover in seamen and officers so that at the time of her engagement with Shannon, the effectiveness of her crew was not up to the usual high standards of the fledgling American Navy.

Responding to Broke's challenge, Chesapeake cleared Boston harbor and closed with the Shannon. Before the action commenced, Broke presented his ship to a rake. Not to be outdone in a point of honor, Lawrence refused the advantage and both ships began the action broadside to broadside at point blank range.

The next 15 minutes were among the bloodiest in sailing warfare with Shannon suffering 83 casualties compared to 146 on the Chesapeake. The action ended as the two ships fell afoul of each other and the Shannon's crew, lead by Broke, rushed the American ship. With their Captain mortally wounded, the Americans were unable to organize a defense and were quickly overwhelmed by the crack British seamen.

Shannon's victory was greeted with much relief by the British Admiralty which had suffered a series of stunning defeats at the hands of American frigates and small craft. Broke was seriously wounded in the boarding action ending his naval career. Lawrence died two days later but his last order, "Don't give up the ship," lived on to become the motto of the American Navy.

II. Ship Data

38 HMS Shannon—Capt. Broke

5th Rate Gun Deck: 28 x 18#LG
330 Crew Main Deck: 2 x 12#LG, 16 x 32#C

38 USS Chesapeake—Capt. Lawrence

5th Rate Gun Deck: 28 x 18#LG
386 Crew Main Deck: 16 x 32#C

III. Game Data

Wind Direction: North

Ship	Nat'l	Sail Class	Hull St'gth	Crew	Crew Qual	TBFP	LGFP	CFP	HDG	"X"	"Y"
Shannon	1	2	490	330	1.7	84	44	40	3	0	100
Chesapeake	3	2	500	386	1.4	82	42	40	4	300	0

12. CLASH OF TITANS

Piercing the Line at Trafalgar

I. 21 October 1805 1200 hours off Cape Trafalgar

Clear For Action is not designed to recreate entire major battles, but portions of great sea battles can be easily set up and replayed. This scenario focuses on the portion of the French & Spanish Combined Fleet's line which was first broken by English Fleet under Vice-Admiral Viscount Nelson, K.B., at the Battle of Trafalgar.

Royal Sovereign, flagship of Vice-Admiral Cuthbert Collingwood and lead ship of the lee division of Nelson's fleet, was the first ship to break through the Combined Fleet's line. At 1200 hours, Royal Sovereign passed between Santa Ana and Fougueux (French 74) raking both ships with double shot. With her first broadside, Royal Sovereign slew nearly 100 of Santa Ana's crew and put 14 guns out of action. Passing through the line, Collingwood's flagship turned to port and fouled with the Santa Ana. These two ships remained hotly engaged for over an hour until Santa Ana struck to a heavily damaged Royal Sovereign.

Victory, Nelson's flagship, lead the windward division and pierced the enemy line between Bucentaure and Redoubtable at 1215 hours. Delivering a double rake to these two ships just as Collingwood had done 15 minutes earlier, Victory then turned to port and engaged Bucentaure, Villeneuve's flagship.

Victory was followed closely by Temeraire and Neptune which engaged Redoubtable and Santissima Trinidad respectively. The battle raged for over four hours, slowly developing into a collection of individual ship actions.

All four of the French and Spanish ships in the scenario eventually struck but not before putting up a strong fight. The mighty Santissima Trinidad sustained an astounding 75-80% casualties as did the feisty Redoubtable under the command of Jean Jacques Lucas who survived the battle to rise to the rank of Admiral and whose sharpshooters are credited with the fatal musket ball which ended Nelson's brilliant career.

II. Ship Data

100 HMS Victory

1st Rate First Battery: 30 x 32#LG
 Second Battery: 30 x 24#LG
 850 Crew Third Battery: 30 x 12#LG
 Main Deck: 14 x 12#LG, 2 x 68#C

100 HMS Royal Sovereign

1st Rate First Battery: 28 x 32#LG
 Second Battery: 28 x 24#LG
 850 Crew Third Battery: 30 x 12#LG
 Main Deck: 14 x 12#LG, 2 x 32#C, 6 x 18#C

98 HMS Temeraire & 98 HMS Neptune

2nd Rate First Battery: 28 x 32#LG
 Second Battery: 30 x 18#LG
 820 Crew Third Battery: 30 x 12#LG
 Main Deck: 10 x 12#LG, 2 x 32#C, 6 x 18#C

80 Bucentaure (French)

3rd Rate First Battery: 30 x 36#LG
 Second Battery: 32 x 24#LG
 830 Crew Main Deck: 18 x 12#LG, 6 x 24#C

74 Redoubtable (French)

3rd Rate First Battery: 28 x 36#LG
 Second Battery: 30 x 24#LG
 700 Crew Main Deck: 12 x 8#LG, 10x24#C

112 Santa Ana (Spanish)—Capt. don Jose Gardogui

1st Rate First Battery: 30 x 36#LG
 Second Battery: 32 x 18#LG
 900 Crew Third Battery: 32 x 12#LG
 Main Deck: 18 x 8#LG

130 Santissima Trinidad (Spanish)—

Commodore don Francisco F. de Uriarte

1st Rate First Battery: 30 x 36#LG
 Second Battery: 32 x 18#LG
 1100 Crew Third Battery: 32 x 12#LG
 Fourth Battery: 32 x 8#LG
 Main Deck: 4 x 4#LG

III. Game Data

Wind Direction: Northwest

Ship	Nat'l	Sail Class	Hull St'gth	Crew	Crew Qual	TBFP	LGFP	CFP	HDG	"X"	"Y"
Victory		STANDARD SHIP #2							1	250	700
Royal Sovereign		STANDARD SHIP #3							1	100	0
Temeraire		STANDARD SHIP #4							1	125	650
Neptune		STANDARD SHIP #4							1	0	750
Bucentaure	2	0	1080	830	1.3	167	159	8	0	700	1200
Redoubtable		STANDARD SHIP #21							0	800	950
Santa Ana		STANDARD SHIP #37							0	500	200
Santissima Trinidad	2	0	1690	1100	1.0	188	188	0	0	600	1450

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