

GATO



WW II GATO-Class Submarine Simulation

*Spectrum HoloByte Inc.*TM



GATOTM

CLASS SUBMARINE

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The following pages will serve as the captain's manual of operations, tactics, and strategy, if you wish. However, you may choose a more daring "sink or sail" method of exploring GATO by using the command list on page two and setting out on trial and error runs in the patrol area, where many surprising discoveries await you!

INSTALLATION INSTRUCTIONS

for the Apple IIe and IIc

THE ENCLOSED WARRANTY/REGISTRATION CARD MUST BE RETURNED TO SPECTRUM HOLOBYTE AS SOON AS POSSIBLE TO ENSURE REPLACEMENT OF DEFECTIVE MATERIALS AND RECEIPT OF UPDATE INFORMATION.

Please follow the installation instructions below for beginning the game.

1. Do not put a write-protect tab on the disk. Gato is an interactive program and must occasionally write to disk.
2. Caps Lock key must be down
3. Place GATO in drive A and "boot." (i.e., turn the computer on, or, if the computer is already on, press the **Control, Open-Apple, Reset** keys simultaneously.)
4. The program will take a few seconds to load. The introduction screens will appear first followed by the Main Menu.

MAIN MENU SELECTIONS:

- 1) Normal Play 2) Demonstration 3) History 4) Exit

Selecting **NORMAL PLAY** begins the GATO game.

A **DEMONSTRATION** is displayed illustrating how GATO is played and will keep playing until you press **ESC** to quit. It is possible to turn the sound OFF during the demo by pressing **S**.

The **HISTORY** selection will give you a brief description of the GATO class of submarine, its specifications and function during World War II.

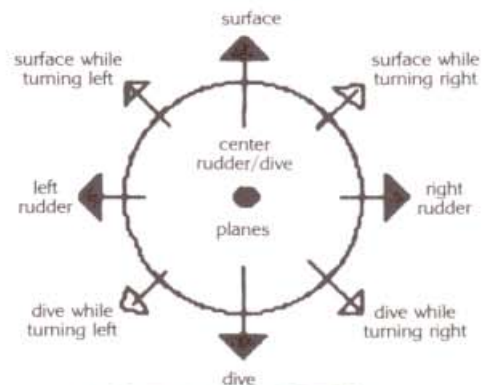
EXIT will take you out of the GATO program. NOTE: After exiting GATO it will be necessary to turn off the computer or reboot another program.

COMMAND LIST

SPEED KEYS:

- 1 All Ahead Flank
- 2 All Ahead Full
- 3 All Ahead 2/3
- 4 All Ahead 1/3
- 5 All Ahead Slow
- 0 All Stop
- 9 All Back

JOYSTICK



DEPTH/HEADING:

- ↑ Surface
- ↓ Dive
- ← Left Full Rudder *Gouvernait*
- Right Full Rudder
- Center Rudder and
dive planes

POWER:

- E Engine (Diesel)
- B Battery (Electric-
below 20 feet)

PERISCOPE:

- ^ Up Periscope
- 6 Down Periscope
- F Forward View
- A Aft View (rear)
- P Port View (left)
- S Starboard View (right)

OTHER KEYS:

- TAB Game Control Parameters (sets difficulty level, night/day, sound on/off, player number, and clears captain's log)
- ESC Escape (end game? Y=yes, N=no)
- DELETE Spreadsheet: The Spreadsheet is a fake screen display; it freezes the game while making it look as if you're busy with financials — just in case you're using GATO at work.
- Z Rapid Submarine Deployment (see page 3)

TORPEDOES:

- T Open/Close Torpedo Doors
- X Fire Torpedoes (or switch
0 on the joystick)

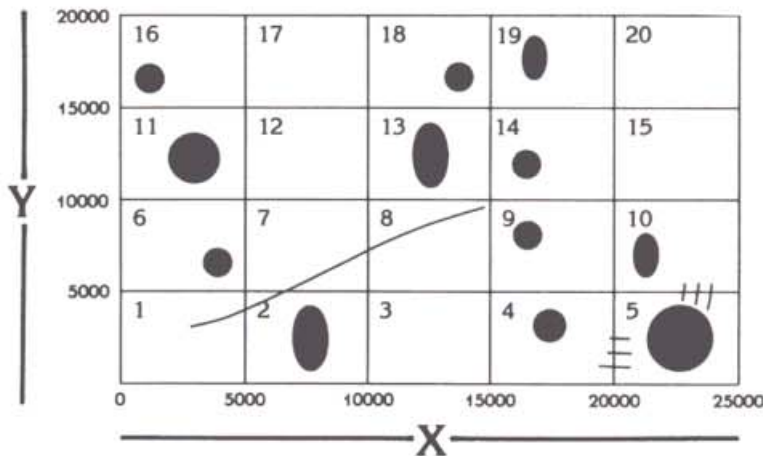
SCREENS:

- C Chart of Patrol Area
 - Q Quadrant Chart
 - L Captain's Log
 - D Damage Report
 - M Mission Assignment
 - R Radar/Clear Radar Scope
- Base - Petrus Panneau Control*

RAPID SUBMARINE DEPLOYMENT (RSD) (or, getting to there from here quickly)

This function is primarily used when your sub is damaged and you want to get repaired and back into the action, quickly. (NOTE: This function is not used by the "True Simulationists," who have a perfectionist's patience and are easily identified . . . when operating GATO they're the ones with wet shoes and water-logged fingers.)

You must be looking at the Chart screen (C) in order to make this function work. Once in the Chart, press **Z**. At the top of the screen a message will appear asking you to enter the password . . . type in **JYTR** and press **return**. You will now be asked to enter coordinates **X,Y**. For an explanation of how to plot these coordinates see the illustration below.



The **X** coordinate is represented by the 5 Quadrants illustrated at the bottom of the Chart and numbered 0 to 25000 (from left to right), each quadrant having a value of 5000. The **Y** coordinate is represented by the 4 Quadrants illustrated at the left of the Chart and numbered 0 to 20000 (from bottom to top), again, each quadrant having a value of 5000.

You do not have to tell the system where you are, just where you want to be. For example, if you are in Quadrant 1 (as seen from the Chart screen), and want to get to the upper right hand corner of Quadrant 8 . . . press **Z**, enter the password **JYTR** and press **return**, enter the **X** coordinate 14500, and the **Y** coordinate 9050 (typed in as: **14500,9050**), and press **return**. The Chart will now

show you positioned in your new location.

You may choose any number from 0 to 25000 for **X**, and any number from 0 to 20000 for **Y**. Numbers higher than those specified for **X** and **Y** will not be accepted; if you make a mistake the system will give you another blank field to enter the correct coordinates. It will take some time to orient yourself on the Chart so keep experimenting — you'll get it down in no time. Oh yes . . . if you try to use the RSD function to escape an enemy who has you spotted with sonar . . . forget it! You got yourself into that mess, you'll have to figure a way out of it . . . the hard way.

MORSE CODE TABLE

A . -			0 - - - - -
B - . . .			1 . - - - -
C - . - .	K - . -	S . . .	2 . . - - -
D - . .	L . - . .	T -	3 . . . - -
E .	M - -	U . . -	4 -
F . . - .	N - .	V . . . -	5
G - - .	O - - -	W . - -	6 -
H	P . - - .	X - . . -	7 - - . . .
I . .	Q - - . -	Y - . - -	8 - - - . .
J . - - -	R . . .	Z - - . .	9 - - - - .

INTRODUCTION

GATO is a real-time simulation of a World War II attack submarine. All objects (ships, islands, torpedoes) are tracked simultaneously with an accuracy greater than one ten-thousandth of a unit in an area of 500 million square units.

“Three-dimensional” object perspective provides depth of field and realistic offensive and evasive ship movement. The enemy may evade and flee — or attack the sub — if you are detected.

Each mission begins with a coded radio message assigning your objective: an enemy convoy or fleet to intercept, the position of friendly forces needing rescue or resupply, or a coastal position for landing a spy or commando unit.

Then, you are somewhere in your patrol area in the Pacific — and you are on your own! The success of your mission, and the safety of your submarine and its crew, are in your hands.

You will navigate the submarine in a patrol area divided into 20 quadrants, some of which contain islands, as shown on your Patrol Area Chart and Quadrant Chart screens. Your primary strategic objective is to efficiently complete as many missions as possible with the supplies you carry on each patrol. You may choose to receive your next mission assignment message at any time.

You may set the level of technical difficulty, and chance will play some small part at critical moments. But the main factor for success is the captain's skill operating and navigating the submarine to achieve mission objectives, using radar, charts, and all the other realistic GATO-class sub capabilities. You learn and use the strategic, tactical, and operational skills of a GATO-class submarine captain to win.

Your record of enemy tonnage sunk is automatically entered in the Captain's Log and can be saved for future games. It all goes into your efficiency rating at COMSUBPAC—Commander Submarine Force Pacific Fleet—if you return from your mission . . .

OPERATING INFORMATION

1. Keyboard/Joystick

Before starting the game, set the Caps Lock key so that all letters are in CAPITALS. *You only need to press a key once to activate its function.* If you have a joystick hooked up to your computer it will be active automatically. See Command List for keyboard and joystick operating instructions.

2. Screens

There are 3 introductory screens (the title screen, author/copyright screen, and the main menu), and 9 game screens (date inquiry, game control parameters, mission assignment, main control screen, chart, quadrant, radar, damage, and captain's log).

Date Inquiry: *(demande)*

Ships sunk will be logged with the month and day that you enter here. The year will always appear as 1943.

Game Control Parameters: (GCP)

This screen appears after the Date Inquiry; it may also be selected during play by pressing the **TAB** key. (NOTE: the program pauses when this screen is displayed.) The following options are presented:

1. **Level of Difficulty** (0 to 9, 0=easiest; 9=most difficult—defaults to 0 if no selection is made)
Ship traces show on quadrant charts at difficulty level 5 or lower, and on the patrol area chart only at the levels less than 3. At levels above 7 the Morse code message is not printed and you can only listen (it helps if you know Morse code).
2. **Sound on/off** (1 for sound, 0 for no sound—defaults to 1)
3. **Time of Day** (1 for day, 0 for night— defaults to 1)
4. **Player number** (1 through 4. This is NOT the answer to "How many players?" but to "Which number player is up next?"— defaults to player #1)

- Up to 4 players are allowed — one player at a time. Each player should be assigned a number (1 through 4). Each time a player completes a mission (or is sunk), the next player “up” must enter the GCP (**TAB**) to “log on” his/her player number. The program then assigns that player a separate Captain’s Log for tallying scores.
5. **Reset Captain’s Log** erases the scores in the log for whichever number player is shown in #4. Each player’s Captain’s Log is automatically reset when that player is sunk . . . it goes down with the ship.

Mission Assignment:

Messages are assigned at the beginning of each game or at the request of the player (press **M**). A message is “received” in Morse code and printed on your screen one letter at a time as it is being deciphered. Should you prefer to receive the message quickly, turn the sound to OFF (select #2 in the GCP), and the message will appear on the screen all at once.

Main Control Screen:

The main screen shows the submarine instrument panel, with the view from the bridge or through the periscope. Crosshairs will appear when the periscope is up. Press ~~any unused~~ key to return to the main screen. *space bar*

The instrument panel displays:

DEPTH: down to 399 feet, as measured from the sub’s deck. The gauge stops when the sub goes beyond this depth (although the radar screen will show actual depth reached), and the sub will be crushed due to pressure if depths below 399 are maintained for more than a few seconds.

SPEED: between 0 and 20 knots, or nautical miles, per hour (1 nautical mile = 1.15 land miles).

HEADING: present course in degrees (magnetic compass bearing). The sub’s direction is due North at a heading of 0 degrees, due East at 90, due South at 180, and due West at 270.

FUEL: remaining diesel fuel in tons. A flashing light will show when the fuel level is critically low.

BATT: current charge of batteries for electric motors. A blinking light and beeping sound indicate when the battery charge is dangerously low.

CHARGING: a light indicates that the batteries are charging.

O2: remaining air (breathing oxygen), which is used at a constant rate when the sub is below 20 feet. A triangular pointer slides up and down to show the amount of air in the tanks.

TORPEDOES: the number of torpedoes remaining. A circular light indicates that the outer torpedo doors are open. Square indicators to the right show which torpedo tubes (1-4) are ready to be fired.

POWER: shows current mode of propulsion, either *ENGINE* or *BATT*, or that the diesel engines and electric motors are *OFF*.

DAMAGE: a light indicates that the submarine has sustained damage. When you sustain new damage a beep will sound. Press the **D** key for a damage report.

VIEW: the arrow represents the direction in which the periscope is pointing (up-arrow shows you are looking forward, down-arrow shows aft, etc.)

The remaining game screens are described in the **Submarine Operation** section.

3. Submarine Operation.

The submarine itself is run with the controls described below. See the command list on page 2 for a summary.

Speed:

Number keys **1**, **2**, **3**, **4** and **5** set forward speed. **0** stops the engines or motors. Your actual speed depends upon whether you are using diesel or electric power, as well as damage conditions and drag from open torpedo doors and raised periscope. **9** reverses the engines.

Power:

You may switch between electric (**B**attery) and diesel (**E**ngine) power by pressing the **B** and **E** keys. You have a much greater

range and speed while using diesel power, but you cannot run the diesel engines at a depth below 20 feet. If you don't switch to electric power when diving below 20 feet, power goes off. If that happens, turn on the electric motors, press a speed key, and center the dive planes.

With each increase in speed, especially when submerged and under electric power, an even greater increase in drag occurs and battery or fuel consumption increases dramatically. (Silent running underwater is possible only at 1/3 speed, with low noise at 2/3 speed.)

Direction and Depth:

Use the arrow keys or joystick to turn, dive, and surface. The hyphen key (-), or the center position on the joystick, centers your rudder and dive planes. The rate of turn is related to the submarine's speed — higher speed gives a faster turn rate. A slight negative buoyancy occurs when the sub is below 20 feet and not moving. The dive planes cannot control depth if the sub speed is at 0, so you must maintain some movement to avoid sinking.

Periscope:

The **^** and **6** keys send the periscope up and down respectively. When the scope is up a crosshair appears in the middle of the screen. You can use the periscope at depths of 0 to 45 feet. You may look in the different directions, **F**orward, **P**ort (left), **S**tarboard (right), and **A**ft (backward), by typing the first letter of each of these directions. (The scope view is 90 degrees wide and each command turns the scope by 90 degrees.)

Torpedoes:

Before firing a torpedo (which is done with the **X** on the keyboard or switch **0** on the joystick), you must open the outside torpedo doors by pressing the **T** key. A light indicates the doors are open. (Your speed will then diminish slightly due to an increase in drag.) To close the doors press the **T** key again. (At great depths doors will not open due to pressure.)

You begin with a supply of 24 torpedoes. After each torpedo is

fired the number in the square indicator disappears and the tube is temporarily out of commission until the crew in the torpedo room can reload it. The number reappears in the square indicating when each of the 4 forward tubes is loaded.

Torpedoes travel at a speed of 60 knots and can take several seconds to reach the target, so you must aim ahead of moving ships at long range — and, of course, the *periscope must be turned forward*. The vertical crosshair is aligned on the target by using left or right rudder. (The horizontal crosshair never moves. It is used for range estimates.)

At low difficulty levels you will usually sink the enemy ship with one torpedo hit, if not, his speed and maneuverability will be reduced.

Oxygen:

The oxygen supply is used at depths below 20 feet. When you surface and turn on the diesel engines, the air compressor starts automatically and refills the tanks within a few minutes.

Damage Report:

The sub's damage can be checked by pressing the **D** key (Damage). The affected area will be highlighted in red on the sub diagram and a trouble light will appear next to the name of the damaged area on a checklist.

Damaged submarine functions are crippled or rendered useless. There are certain areas which are more critical than others such as the control room, torpedo room, or the bridge. When heavy damage accumulates, chances of survival are slim, and you should return to the subtender for repairs.

4. Navigation.

Navigation and game control are accomplished with the following functions.

Radar:

Radar (the **R** key) shows the relative angle and range between the

sub and other objects such as ships and islands. Ships are tracked as single dots which move across the radar screen, and islands are displayed as circles. The top of the screen shows what is in front of you, what is on the right of the screen is to the right of the sub, and so on. The sub's radar has a range approximately 10 percent longer than that of the periscope or visual sighting from the conning tower. The radar scope is positioned atop its own mounting tube and may be used to a maximum depth of 45 feet. To clear the radar scope press the **R** key. Press the **space bar** or any unused key to return to the main program. (You may fire torpedoes, dive, or surface while using radar.) Remember, both you and the other ships may be moving.

Chart of Patrol Area:

The patrol area chart (the **C** key) displays your position (in blue dots) and traces your present course within the entire patrol area (the game world). It is most useful to see which quadrant you are in and how deep you are into enemy territory, as well as island positions and general patrol area geography. The subtender (in blue) and enemy ships (in red) are also displayed at game difficulty levels less than 3. Press **C** again to clear your trace. Press any unused key to return to the main screen.

[space bar]

Quadrant of Operations:

The quadrant chart (the **Q** key) traces your position and course in the quadrant where you are currently located. (Allow at least ten points to be plotted if you want an accurate course trace.) Subtender and enemy positions are shown at a game difficulty level of 5 or lower. The position of any island is also shown. Shoals and reefs are indicated by a dotted red line. The chart changes automatically when the sub moves from one quadrant to another. Press **Q** again to clear your trace. Press any unused key to return to the main screen.

Mission Assignment Messages:

Pressing the **M** key brings a new mission assignment message. This is normally done when your current mission is complete, but

you may call for a new mission at any time. The patrol area will change accordingly.

Messages are preceded by the level of classification, and the Date Time Group (DTG). This DTG gives the day of the month (entered at the beginning of the game), and Zulu time (Greenwich Mean Time, Greenwich, England).

Islands:

Take care when approaching islands. If you get too close you may run aground on a shoal. In that event, you will drift free on the tide in a short time. Reverse engines to back away from the island (hold 9 key down until off of shoal) before going forward on a new course.

Damage repair and resupply:

When you have accumulated significant damage or are low on supplies, you should return to the allied subtender, which cruises among the four allied-controlled quadrants (1, 2, 6, and 7). When you approach, the subtender's speed will decrease to about 3 knots. Once you are close enough, and at a parallel course and speed, damage will be repaired, torpedoes replaced, and fuel tanks refilled.

Do not shoot your own subtender! You will have no way of resupply, and it will get you in hot water with COMSUBPAC!!!

Captain's Log:

Use the L key to display the Captain's Log — the record of each ship sunk and the total tonnage accumulated for all the sub's missions since the log was last cleared. The Log is not reset when you begin the game, so you may continue to play where you last left off (unless you were sunk). You may clear the Log with the game control screen as described on page 7. The Log is also cleared when the list of known enemy ships is exhausted. Press any unused key to return to the main routine. (The program pauses when you display the Log.)

5. Beginning the Game.

When you have received your first mission assignment and

have pressed a key to begin, you will see the main screen with the instruments indicating full supplies and zero depth, speed, and bearing. You will be in a friendly quadrant, usually quadrant 7, which you can verify by pressing the **C** key to view the patrol area chart. The sub and (at difficulty levels less than 3) the subtender will be plotted as blue dots on the chart. Enemy ships will be plotted in red (at level 2 or lower).

16 i	17	18 i	19 i	20
11 i	12	13 i	14 i	15
6 i	7 X	8	9 i	10 i
1	2 i	3	4 i	5 i

The patrol area is divided into 20 quadrants. Of these, 1, 2, 6, and 7 are occupied by allied forces. Quadrants 11 and 16 are relatively neutral. Enemy ships are not often found there. The rest of the area is dominated by the enemy. Your missions are to infiltrate this region to cut off enemy supply lines, rescue and resupply allied forces, and perform reconnaissance and espionage support.

Use the chart to determine the course necessary to reach your objective, and use the main screen display to monitor your use of the controls as you set the sub in motion on the proper course. Use the charts to track your progress until the objective is in view.

You may wish to stop here and explore the variety of situations in GATO before reading the following section on strategy and tactics. If so, relax — you can always clear the Captain's Log and start over!

STRATEGY and TACTICS

This section discusses strategic and tactical methods which will aid in survival and the best performance of your missions. It also contains additional useful facts about the sub's operation.

Strategic Notes.

Resource conservation.

Your primary strategic objective is to complete as many missions as possible with the supplies you carry on each patrol. Generally, this requires efficient tactical use of such expendable supplies as fuel and torpedoes. For each mission (at a given game difficulty setting), there is a minimum expenditure of resources with which the mission may be accomplished.

This is the principle guideline to remember (besides survival) when making difficult tactical choices, such as whether to chase a convoy at full speed or try to outmaneuver it, or wait for another one, or whether to expend a torpedo on a distant target. Also, if you are attacked when your supplies are low, your chances of survival are accordingly lower, especially if you are a long way from friendly waters.

Your ability to accomplish this primary strategic objective is the best overall measure of skill and success in the game.

Target selection.

You will need good judgment in selecting targets according to the resource conservation principle. For example, expending a torpedo on a patrol boat early in your patrol may mean not being able to sink a tanker later. But if you are heading for home with one torpedo left and your fuel is low, and you encounter an enemy destroyer, a successful shot with that torpedo may mean your survival.

Other target selection problems are more subtle. A choice between a destroyer and a freighter at a difficult game level may involve how many torpedoes you think it will take to sink each ship, whether you think you can risk firing again after reloading, etc.

These targeting choices will become easier as you gain experience and skill in developing your patrol strategies.

Balancing risk and gain.

Every action in the patrol area involves some degree of risk, small or great, which must be balanced against the action's

potential gain. Every situation you play will add to your ability to foresee the future risk-gain balance created by your current decisions. The more favorable you make the balance of risk and gain, the better your chances for long-term success.

Notes on Operations and Tactics.

Reconnaissance.

Radar:

Radar is most useful for reconnaissance of the area just beyond the visual horizon, for early warning and target tracking at minimum risk, and for navigation at night or in dense weather. (It is also more easily detected by the enemy than the periscope.)

Periscope and bridge:

When the sub is surfaced, the bridge view is the same as the periscope view and is controlled the same way. When the enemy may be in your area it is important to continually check the view around the entire sub (360 degrees) as long as any part of the sub or periscope is exposed above the surface.

Any time the radar or the periscope is above the surface when enemy ships are in view, the risk of detection increases with time and speed. The standard procedure to minimize this risk is to keep the scope up (ideally at a depth of 40 to 45 feet) only long enough to observe the positions and headings of the ships around you or to fire torpedoes.

If you pass under another ship, remember that a safe depth must allow for the 20 or 25 feet which the downed periscope and radar project above the top deck, plus the bottom depth (draft) of the surface ship. If your periscope/radar assembly is damaged in enemy waters, you have serious trouble.

Fleet and convoy formations:

Your radar and periscope are your most important tools in one of

the most critical attack procedures — discovering the formation and composition of enemy fleets and convoys before you attack them. The tactical plan for an attack should be based on this reconnaissance.

Efficient sub attack patterns.

The main factors in planning an attack pattern are the positions of the primary targets (gain) and the deployment of enemy ships and patrol boats. You will usually (but not necessarily always) want to choose a position for your initial attack that will allow you to fire at the greatest number of primary targets in the shortest possible time, while keeping as far as possible from the threat of enemy warcraft.

Suppose, for instance, that your reconnaissance of a convoy shows a randomly dispersed group of three large freighters and two smaller ones, with a destroyer escort on the right flank and patrol boats leading and trailing toward the left flank. Your best position would be off the convoy's left flank, forward of center.

You might then adjust your position or timing to give the best chance of hitting all three large freighters with one spread of torpedoes launched in fast sequence, so as to strike each ship as nearly as possible at the same time.

You should also weigh the risk and difficulty of getting in close enough for a sure shot. The probability of a hit decreases with the distance the torpedo travels.

Enemy anti-sub tactics and sub defense.

Once you torpedo a ship, or if you are sighted by the enemy under other circumstances, it is almost certain that nearby warships will be sent to seek and destroy you. If there are nearby warships you can hear them trying to detect you with their sonar. At that point you have essentially two tactical choices: 1) destroy the enemy ships attacking you, or 2) run as silently and deeply as possible until they have no chance of spotting you when you surface — as you eventually must.

Your chances of being detected in any situation depend mostly on your depth, distance from the enemy, whether it is day or

night, and somewhat on luck. You must anticipate the following hazards:

Enemy warships:

PATROL BOATS cruise near the islands and are notified when a submarine is sighted. They may also escort a convoy briefly as it passes their island base. They are faster and more maneuverable than the sub, so they are hard to hit and impossible to evade on the surface. They carry deck guns, and torpedoes and depth charges in small quantities. Generally they are best avoided, although you might be able to sink one by surprise, or escape in deep water.

The usual attack procedure for patrol boats is to come straight in fast with a torpedo run on the sub's flank, or to make one or two depth charge runs over an area where a sub has just dived. The standard sub defense is a crash dive with a hard turn away from the attacking vessel.

DESTROYERS are essentially your most dangerous adversary. One hit from their guns or depth charges is usually fatal, they carry a large ammunition supply which allows them to sustain a long engagement against you, and they usually have sonar which can only be evaded with very cunning tactics. Yet, they are nearly as maneuverable as the sub, are faster, and have longer range.

If a destroyer attacks you while you are on the surface or in shallow water, it will use guns with up to twice the range of your torpedoes. (There are different size destroyers with varying capabilities.) If you don't maneuver effectively or dive, it will almost always hit you after the first salvo. Generally, unless you are much smarter or luckier than the destroyer captain, your only chance to sink him will be with a head-on bow shot, while under fire.

Once you dive, he will attempt to track you with his sonar and with acoustic gear which picks up propeller noise, internal sub noise,

etc. You must attempt to evade him by running quietly and maneuvering away from his course. If he finds you, he will begin depth charge runs based on estimates of your course, speed and depth. You must either run deep and play dead, or maneuver through the depth charge patterns in three dimensions until you can escape.

Depth charges:

These are set to explode at a certain depth, which is set before they are dropped. This means the captain of the enemy ship must bracket your position in three dimensions, instead of two as with surface gunnery. This is your advantage in evasive maneuvering. A charge must explode fairly close to the sub's hull to do fatal damage.

Risk control.

The following methods of controlling risk are recommended for success in your patrols and your record in the Captain's Log. 1) Stay within your resources, especially with fuel and battery reserves. 2) Give yourself the necessary time and distance to escape after an attack on the enemy. 3) When in doubt, dive. 4) When under enemy attack by depth charge, either go dead in deep water or keep maneuvering. When escaping enemy search, run silent, run deep. 5) Avoid coastal waters and shallow areas whenever possible. These are the worst possible places to be caught.

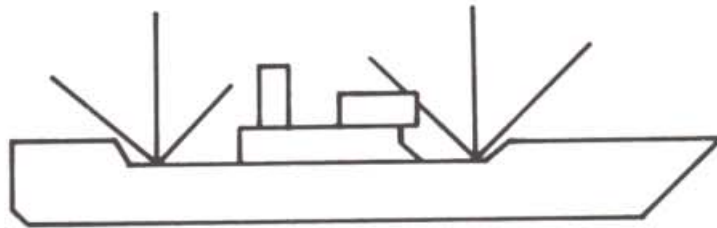
Remember, an accumulation of damage works against you with time, even if it is initially far from fatal. When assessing damage effects and risks, you must evaluate your entire situation including time, distance from home, possible future attacks, etc.

Rescue and covert missions.

These missions are accomplished by navigating to the position specified by the assignment message and stopping on the surface for the necessary time. For certain missions, you must arrive within a certain time and accomplish other tasks as well, before the mission can be completed.

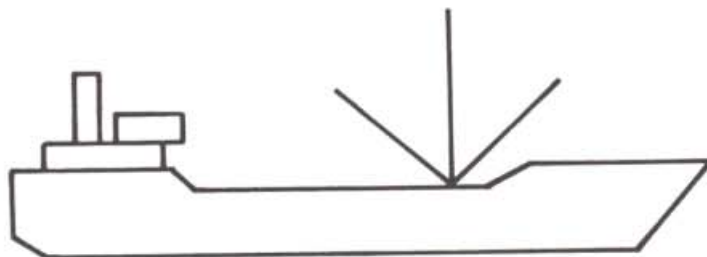
SHIP TYPES

ALLIED CRAFT

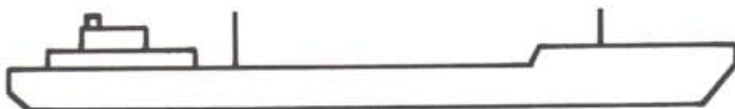


Subtender

ENEMY CRAFT



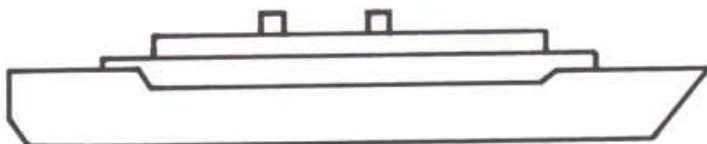
Freighter



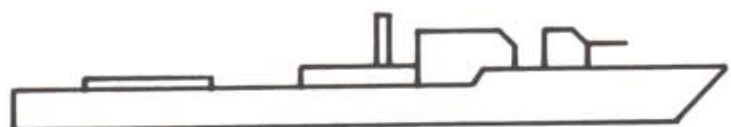
Tanker



Patrol Boat



Troop Carrier



Destroyer

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IBM version created and programmed by:
Paul Arlton and Ed Dawson

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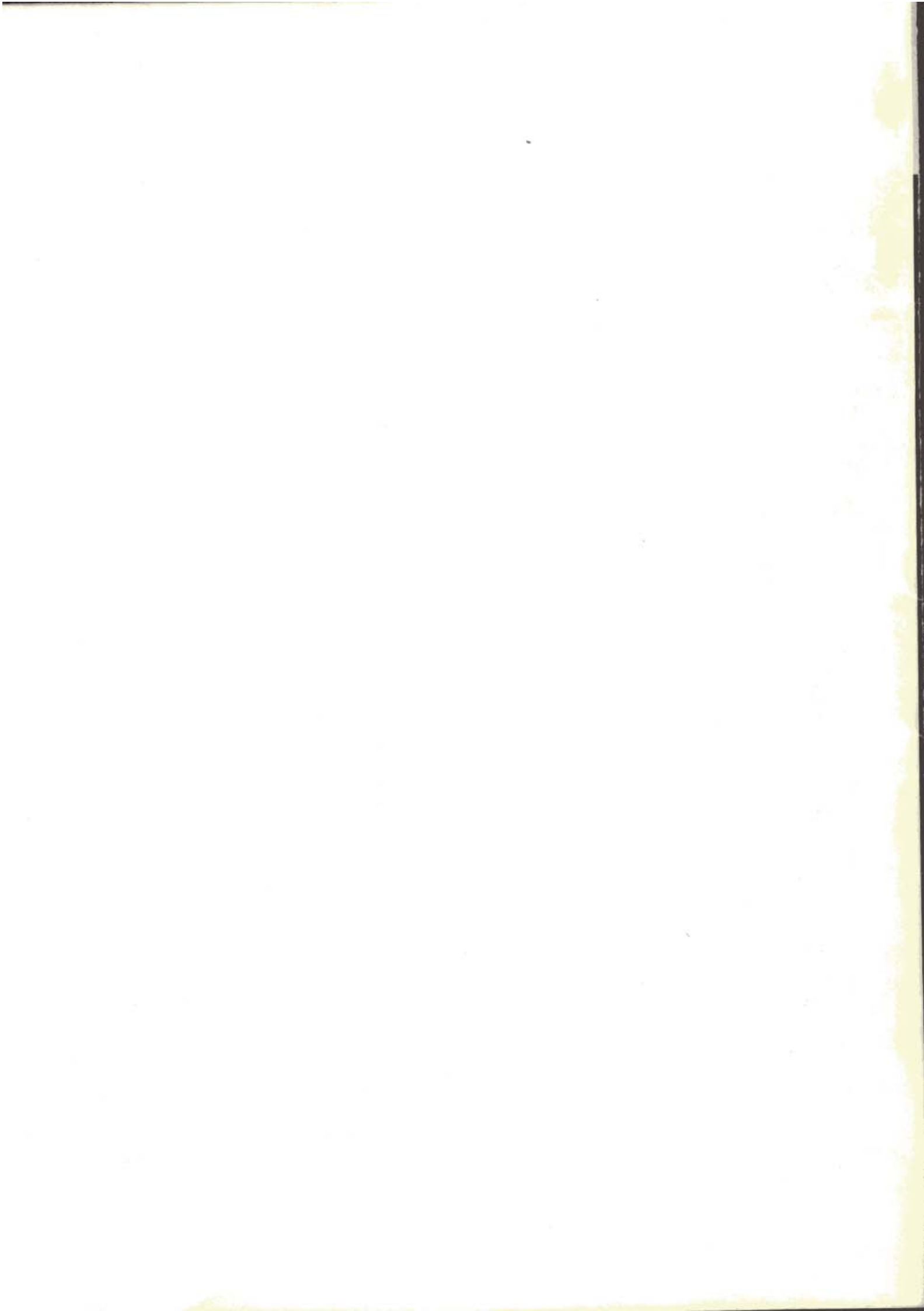
Apple II version by:
J.A. Yandrofski and Timothy Reese

Macintosh version by:
Sean Hill, James Rhodes, and Bill Scott

Special thanks to
Captain Bill Graves, United States Navy, Retired

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reset

End Game ESC	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	Center Rudder - Planes	+ =	Spreadsheet delete
GCP tab	Quadrant Q	W	E	R	T	Y	U	I	O	Port View P	{ []]	\
control	Att View A	Starboard View S	Damage Report D	F	G	H	J	K	Capit's Log L	:	"	return	
shift	RSD Z	Fire Torpedo X	Chart C	V	B	N	M	<	>	? /	shift	return	
caps lock	~									Left Rudder ←	Right Rudder →	Dive ↓	Surface ↑

TAB -Game control parameters
 ESC -(Escape): End game

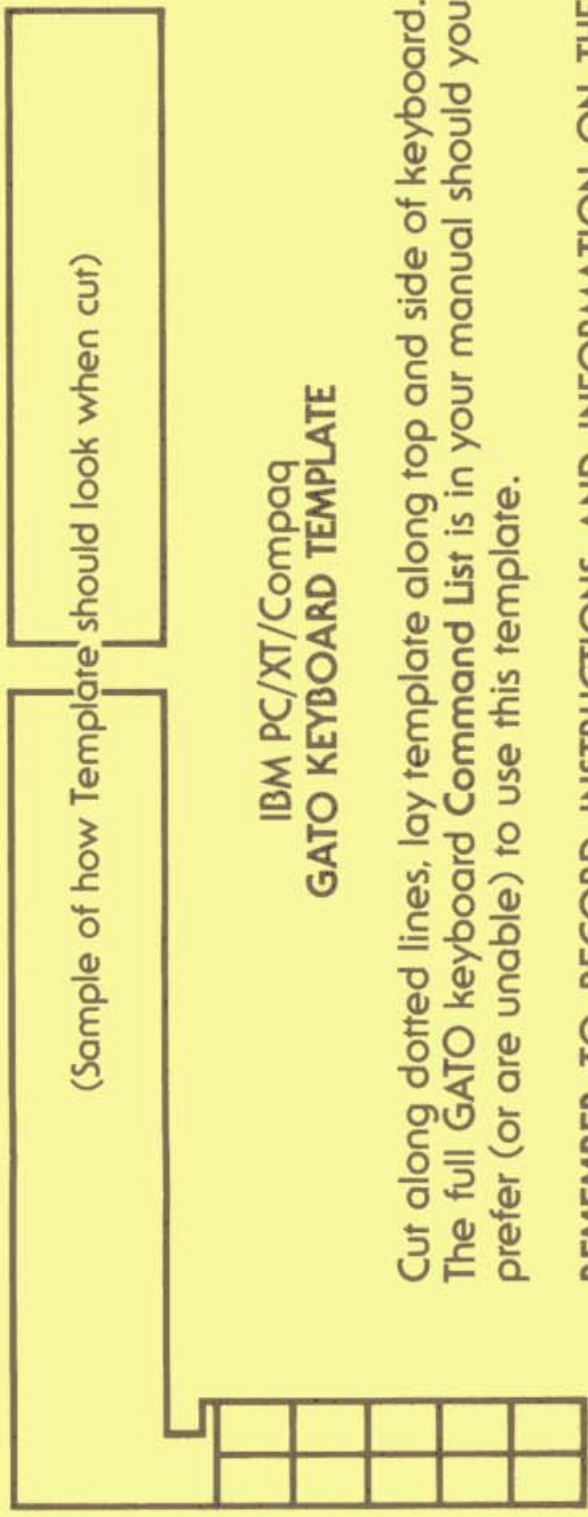
D -Diesel power
 E -Electric power
 C -Chart of patrol area
 Q -Quadrant of operations chart
 M -Mission assignment message

F -Forward view periscope
 P -Port view periscope (left)
 S -Starboard view periscope (right)
 A -Aft view periscope (backward)

All ahead rank	-Up periscope
All ahead ill	-Down periscope
All ahead /3	-Radar
All ahead /3	-Fire torpedo
All top	-All back

T -Torpedo doors (open/close)
 R -Reset (clear) radar screen (called only in radar)
 R -Damage report (sub's damage)
 L -Captain's Log

^ -Surface
 v -Dive
 < -Left full rudder
 > -Right full rudder
 5 -Center rudder and dive planes



IBM PC/XT/Compaq
GATO KEYBOARD TEMPLATE

Cut along dotted lines, lay template along top and side of keyboard.
 The full GATO keyboard Command List is in your manual should you prefer (or are unable) to use this template.

REMEMBER TO RECORD INSTRUCTIONS AND INFORMATION ON THE REVERSE SIDE OF THIS CARD IF YOU INTEND TO USE THE TEMPLATE!

GATO for the Apple //e and //c ADDENDUM/CHANGES TO THE MANUAL.

- Page 1: **MAIN MENU SELECTIONS:**
A **DEMONSTRATION** is displayed... The **S** is a toggle switch; press the **S** key after receiving the Morse code message to turn the sound off; press **S** again to turn the sound on.
- Page 2: **PERISCOPE:** The ^ sign (Up Periscope) is accessed by pressing the **Shift** and **6** keys.
- SCREENS:** To get back to the Main Control Panel, press the **space bar**.
- JOYSTICK:** and **DEPTH/HEADING:** The arrow keys will not function if the joystick is plugged in. It is necessary to boot GATO with the joystick **unplugged** if you wish to use the arrow keys. Conversely, boot GATO with the joystick plugged in if you wish to control depth and heading with the joystick instead of the arrow keys.
- Page 7: **Main Control Screen:** "Press any unused key to get back to the main screen." should read, "Press the **space bar** to get back to the main screen."
- Page 8: **O2:** The oxygen indicator (located at the upper right-hand corner of the instrument panel), does not have a label "**O2**" on the screen.
- Page 12: **Damage repair and resupply:** The subtender's speed will not decrease, it will not attempt to rendezvous with you. The best way to effect repairs is to follow closely behind the subtender until repair and resupply occur.

RETURN TO:

AFFIX
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Spectrum HoloByte Inc.

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ProRAM board (80 column/64K)	APPLE//e	179.95	2.50
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cut along dotted line

Spectrum HoloByte, Inc. Product Price List (effective through 9/30/85)

Product	Machine	Price	Shipping
GATO	IBM	39.95	2.50
GATO	APPLE//	39.95	2.50
GATO-backup	APPLE//	7.50	0.00
GATO	MACINTOSH	49.95	2.50
GATO-backup	MACINTOSH	10.00	0.00
GATO T-shirt	(S-M-L)	7.50	2.50
GATO hat	(One size)	7.50	2.50
GATO poster	(16" x 23")	5.95	1.50
The Art Studio	IBM	49.95	2.50
TellStar I +Bkup	APPLE//	49.95	2.00
TellStar II +Bkup	APPLE//	79.95	2.00
TellStar I	IBM	49.95	2.00
TellStar II	IBM	79.95	2.00
TellStar II/8087	IBM	129.95	2.00