- SILENT SERVICE
- CARRIER COMMAND
- P 47

ST. AG. PC
CPC. C64
SPEC CASSETTE

UBI SOFT

ENGLISH

Entertainment Software

ATARI ST

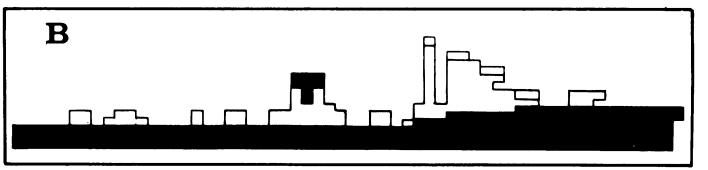
simply place the Silent Service disk in your computer and turn it on.

IBM PC or TANDY 1000

NOTE: Your IBM PC must have a color graphics card to play this game. You may use either keyboard or joystick to play.

Place the game disk in your disk drive and turn on the computer. The disk will boot automatically.

SPECTRUM CASSETTE : Insert the cassette in the cassette player and switch on your computer. Confirm the LOADER option by pressing the RETURN key. A message will appear asking you to press the PLAY key on the cassette player and then a key on the keyboard. After following these instructions, the game will load automatically.



SCENARIOS

There are three types of scenarios. "Torpedo/Gun Practice" places you outside the American base at Midway Island. Four old cargo ships are anchored there as torpedo and gunnery practice targets. The second set of scenarios: "Convoy Actions", recreate various actual submarine attacks on a convoy. "War Patrols", allow you to command an entire patrol, beginning at the submarine bases at Midway, Brisbane, or Fremantle; continuing through a number of convoy actions; and concluding with a return to base.

SKILL LEVELS

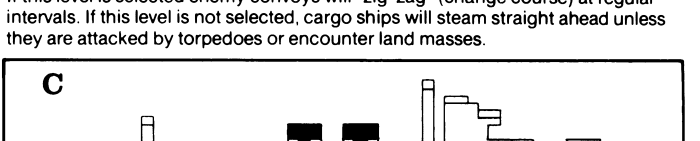
You may select from one of four skill levels: "MIDSHIPMAN", "LIEUTENANT", "COMMANDER" or "CAPTAIN". The skill level affects the accuracy of torpedo runs, damage sustained from depth charge attacks, the skills of enemy lookouts and sonar operators, as well as other factors. The "MIDSHIPMAN" level is designed to provide a challenge for beginning players. The "COMMANDER" level is designed to be historically accurate. The "CAPTAIN" level is intended for the expert sub driver. Press 1, 2, 3 or 4 to change the skill level.

REALITY LEVELS

In addition, you may customize the simulation with various "reality levels". Each level introduces an element which makes the simulation both more realistic and more difficult. To select the reality levels, use the joystick to move the flashing asterisk and press the trigger to toggle the YES/NO indicator.

1) LIMITED VISIBILITY
If this level is selected enemy ships which are beyond radar/sonar range will not appear on the map displays. Enemy ships which were detected but have moved out of range will blink slowly at their last known position. If this level is not selected. all enemy ships will appear on the map displays regardless of their range or location.

2) CONVOY ZIG-ZAGS
If this level is selected enemy convoys will "zig-zag" (change course) at regular intervals. If this level is not selected, cargo ships will steam straight ahead unless they are attacked by torpedoes or encounter land masses.



3) DUD TORPEDOES
If this level is selected some of your torpedoes may be duds, especially during the years 1942-1943. Dud torpedoes may hit the enemy but will not explode, only the splash will be seen.

4) PORT REPAIRS ONLY
If this level is selected repairs will no longer be accomplished automatically while in battle or on patrol. Once an item of major equipment is damaged, it may not be repaired.

5) EXPERT DESTROYERS
If this level is selected certain enemy convoys will be escorted by "expert" destroyers. These escorts are more persistent and have better trained sonar operators.

6) CONVOY SEARCH
If this level is selected convoys will not always appear within radar range. You will need to search them out. Far off convoys are best sighted by performing a 360 degree periscope/binocular sweep of the horizon.

7) ANGLE-ON-BOW INPUT
If this level is selected the computer will no longer calculate the "Angle on the Bow" for torpedo shots. You must enter the angle yourself based on periscope observations. Be sure you understand the workings of the Torpedo Data Computer before attempting this level. Recommended for experienced players only.

DIFFICULTY LEVELS

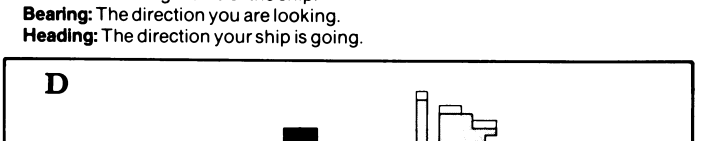
The skill level and reality levels you select combine to produce an overall difficulty factor from 1 to 9. This difficulty factor and the tonnage which you sink will determine your ranking in the "Submariner's Hall of Fame" at the conclusion of your mission.

Once you are satisfied with the skill and reality levels, press "F7" to load the remainder of the game and begin play.

Additional data may be loaded at this time. When loading is completed you will appear in the conning tower (or the Patrol Navigation Map if you selected a War Patrol scenario) and the action will begin!

TERMINOLOGY

Port: The left side of the ship.
Starboard: The right side of the ship.
Bearing: The direction you are looking.
Heading: The direction your ship is going.



CONTROLS

All of the following controls have keyboard equivalents that can be found on the Keyboard Commands chart on the inside front cover of the manual.

SUBMARINE CONTROLS

Submarine controls are available primarily at the *Maps and Charts* or *Gauges and Instruments* battle stations.

Dive: To dive, pull down or toward you ("south") on the joystick. (If using a mouse, click on the downward arrow of the sub control icon.) This causes the sub to increase its depth. When you have reached the desired depth, cancel the command by pushing up or away ("north") on the joystick. (Mouse: Click the center or upward arrow of the sub control icon.)

In scenarios before August, 1943 your maximum safe depth is 300 feet; after August, 1943 your maximum safe depth is 425 feet.

Surface: To surface, push up or away ("north") on the joystick. (If using a mouse, click on the upward arrow of the sub control icon.) This causes the sub to rise toward the surface. When you have reached the desired depth, cancel the command by pulling down or toward you ("south") on the joystick. (Mouse: Click the center or downward arrow of the sub control icon.)

Left Rudder: Press the joystick to the left ("west") for Left Rudder; press again for Full Left Rudder. (If using a mouse, click on the left arrow of the sub control icon.) This turns the sub toward the left (port); if looking on the *Map* screen, you will see the sub turn counterclockwise. To cancel, press the joystick to the right. (Mouse: click on the center or left arrow of the sub control icon.) Note: Turning the sub changes its **heading**.

Right Rudder: Press the joystick to the right ("east") for Right Rudder; press again for Right Full Rudder. (If using a mouse, click on the right arrow of the sub control icon.) This turns the sub toward the right (starboard); if looking on the *Map* screen, you will see the sub turn clockwise. To cancel, press the joystick to the left. (Mouse: click on the center or left arrow of the sub control icon.)

COMMAND	C-64	IBM, ATARI ST, AMIGA	DESCRIPTION
LOCATIONS			
CONNING TOWER	SP. BAR	SP. BAR	Return to the conning tower menu screen
MAP	F1	F1	Select the Maps and Charts battle station. If you are already at Maps and Charts, this will re-center the map on your sub
BRIDGE	F3	F2	Select the Bridge battle station (only possible when the sub is on the surface)
SCOPE	F5	F3	Select the Periscope/Binoculars battle station screen (only possible if sub is at periscope depth or on the surface)
GAUGES	F7	F4	Select the Gauges and Instruments battle station screen
DAMAGE	F2	F5	Select the Damage Reports battle station screen
LOG	F4	F6	Display the Quartermaster's Log for the current patrol
PATROL/END	F8	F8	Return to the War Patrol Navigation screen to search for another convoy. This ends the game if playing a **Convoy Action** or **Training** scenario
SUBMARINE CONTROLS			
PERISCOPE	P	P	Raise/Lower periscope. This command also sets the visual bearing to be the same as your sub's heading — you will be looking straight ahead
THROTTLE	0-4	0-4	Throttle settings: all stop, 1/3, 2/3, full, and flank speeds
REVERSE	R	R	Reverse the engines. Note that the turning effect of the rudders is reversed if the sub is proceeding in reverse
DIVE	D	D	Causes sub to dive Cancel this command by pressing RETURN
SURFACE	S	S	Causes sub to rise toward surface Cancel this command by pressing RETURN
LEFT	↓ ↑	←	Left rudder. Press again for Full Left Rudder To cancel press RETURN
RIGHT	← →	→	Right rudder. Press again for Full Right rudder To cancel press RETURN
CANCEL	RETURN	RETURN	Cancel all turn and dive commands
EMERGENCY	CTRL. E	CTRL. E	Blow emergency tanks to halt uncontrolled dive (Can only be used once per engagement.)

COMBAT CONTROLS

Combat controls are available primarily when at the Periscope/Binoculars battle station.

Rotate View Left: Press the joystick left to rotate the view left on the *Periscope/Binoculars* or *Bridge* screens. (Mouse: place the mouse arrow on the left handle or left horizon and hold down the **left** button.) To increase the rotation speed, hold down the fire button while pressing the joystick over. (Mouse: hold down **both** buttons.) Rotating the view changes its **bearing**.

Rotate View Right: Press the joystick right to rotate the view right on the *Periscope/Binoculars* and *Bridge* screens. (Mouse: place the mouse arrow on the right handle or right horizon and hold down the **left** button.) To increase the rotation speed, hold down the fire button while pressing the joystick over. (Mouse: hold down **both** buttons.)

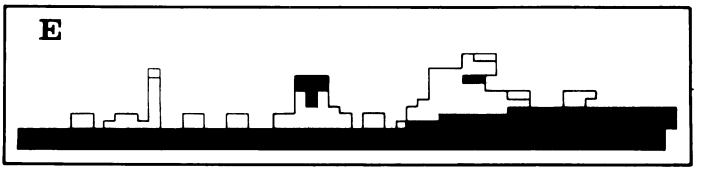
COMBAT CONTROLS			
IDENTIFY	I	I	Identify target in crosshairs on scope
TORPEDO	T	T	Fire torpedo. Bow or aft tubes will be selected automatically depending on which faces the target more directly
GUN	G	G	Fire the 4-inch deck gun
UP 25	+	+	Add 25 yards to the deck gun range deflection
DOWN 25	-	-	Subtract 25 yards from the deck gun range deflection
ROTATE SCOPE LEFT	JOYSTICK CMND.	< (SHIFT ,)	Rotate periscope/binoculars or bridge view to the left
ROTATE SCOPE RIGHT	NO KEY CMND.	> (SHIFT .)	Rotate periscope/binoculars or bridge view to the right
AOB	A	A	Enter Angle-on-Bow estimate. AOB is entered in degrees by holding the joystick left or right. Press the fire button to enter the estimate. Use positive numbers for Starboard, negative numbers for Port, e.g., 45 degrees Port is -045.
RELEASE DEBRIS	?	?	Release debris and oil which may convince the enemy your sub has sunk.

TIME AND SCALE CONTROLS

Software Concealment: (IBM only.) Press the "`" (apostrophe) key to display a bogus "PROCESSING PLEASE WAIT" message. This locks out the keyboard until the "`" key is pressed again. If you're playing at the office and the boss walks by, this can be very handy!

Volume Control: (IBM only.) Press the "V" key to turn off the engine sounds; press again to turn off all sounds. A third press will restore all sounds.

TIME AND SCALE CONTROLS			
WAIT	W	W	Pause the simulation — press any key to continue. You may also pause by selecting the Conning Tower screen.
FASTER	F	F	Increase the time scale to cause the simulation to proceed more rapidly
NORMAL	N	N	Return to normal time scale.
ZOOM	Z	Z	Expand the situation map display to take a closer look at nearby ships and terrain.
UN-ZOOM	X	X	Compress the situation map display to get a wider view of ship locations and land areas



CONNING TOWER MENU SCREEN

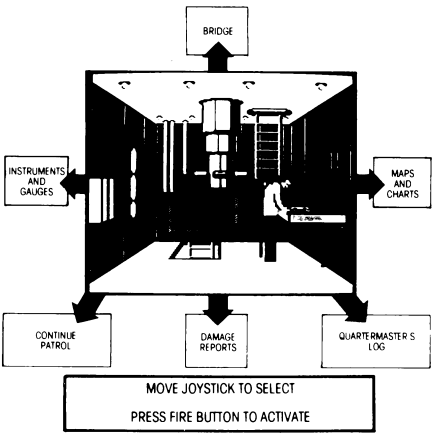
The conning tower screen acts as a menu screen — from this screen, you may select any of the five detailed battle station screens: the attack periscope, the bridge, the map plot, critical gauges and instruments, and damage reports (all of these are described in the "Battle Stations" section below). Use the joystick or mouse to position the captain at the desired battle station, then press the trigger. Center — Periscope; Up — Bridge; Left — Instruments and Gauges; Right — Maps and Charts; Down — Damage Reports. To access the *Binoculars* battle station you must first go to the *Bridge*, then press the fire button again. You may return to the conning tower from any screen but the *Bridge* by pressing the fire button (Atari St or Amiga: The **right** mouse button).

When you are at the conning tower screen, the simulation is paused. Note that some selections are unavailable under certain conditions, e.g. the bridge is unavailable if you are under water, etc.

You may also select two special functions from this screen. If you are playing a Training or Convoy Action scenario, the "End of Game" function (joystick or mouse down and left) will end your mission. If you are playing a War Patrol scenario, the "Continue Patrol" function (joystick or mouse down and left) ends the current convoy battle and returns you to the patrolling screen. You cannot end the battle if you are being tracked by enemy escorts, have torpedoes active, or if an enemy ship is still sinking.

The "Quartermaster's Log" option (joystick or mouse down and right) is used to review your accomplishments so far in this patrol.

If you prefer, keystroke commands may be used to make these selections (key commands **must** be used if playing the IBM version without a joystick).



Bearing: Notice that the "Bearing" changes as you rotate your view. Bearing is the direction in which you are looking expressed in compass degrees. Bearing 000 indicates you are looking North, 090 is East, 180 is South and 270 is West.

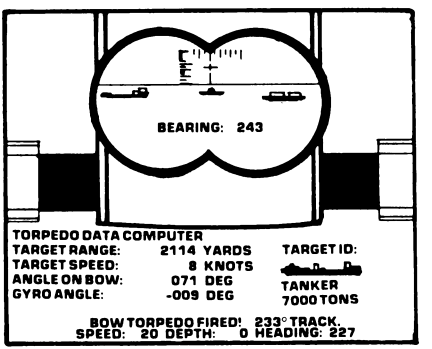
PERISCOPE/BINOCULARS BATTLE STATION

This screen displays the view through the attack periscope during daylight/dusk/dawn and the view from the bridge Target Bearing Transmitter binoculars at night. The viewing area shows an enlarged image of visible ships and land.

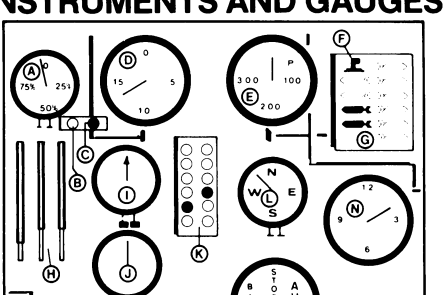
Controls Available: All *Combat* controls, plus *Wait, Faster Time* and *Normal Time*. (Atari ST and Amiga: Submarine Controls are available in the mouse menu.)

Torpedo Data Computer:

When the crosshairs turn white, the Torpedo Data Computer is activated and target tracking is displayed. The TDC displays the range to the target, the target's speed, "angle on the bow," the computed gyro lead angle necessary to hit the ship, and the target's course. (Course is not available if you have selected the "Enter Angle-On-Bow" reality level.) You may fire a torpedo by pressing the "T" key, fire the deck gun by pressing the "G" key, or request target information from the identification party by pressing the "I" key. (Atari St or Amiga: You may control these functions with the mouse by selecting the torpedo or deck gun icons to fire weapons, and clicking in the target ID area for identification.)



INSTRUMENTS AND GAUGES



This screen displays vital status information. The straight up position for all gauges represents a zero value, with increasing values in the clockwise direction. The primary instruments and gauges are:

(A) BATTERY LEVEL - a gauge indicating the amount of electricity remaining in the battery. The battery is used for submerged cruising and is gradually recharged when on the surface. If your battery is exhausted you will be unable to move while underwater. A fully charged battery will allow one hour of high speed maneuvering underwater, five or six hours at slow speeds.

(B) BATTERY CHARGE LIGHT - indicates the battery is being charged.

(C) BATTERY IN USE LIGHT - indicates the battery is being drained.

(D) SPEED - a gauge indicating the sub's speed through the water. Maximum surface speed is 20 knots, maximum submerged speed is 10 knots.

(E) DEPTH - a gauge showing the current depth below the surface. Periscope depth is 44 feet or less. Note that depth measured in feet below the surface; zero depth means the sub is on the surface.

(F) PERISCOPE INDICATOR - this indicator in the upper left of the torpedo status box is white if the periscope is raised, black if down.

(G) TORPEDO READY INDICATOR - a series of lights indicating which forward and aft torpedoes tubes are ready for firing. Green indicates ready, black indicates empty. Torpedo reloading is performed automatically and requires about 10 game minutes per tube. The green number under each column of torpedoes indicates how many bow/aft torpedoes remain in addition to those already in the tubes. The red number above the indicator indicates how many deck gun shells remain.

(H) FUEL LEVELS - three vertical tubes showing the diesel fuel levels in the three main tanks. The diesel fuel floats on top of the water. The tubes show the amount of fuel (black) and water (white) in each tank. Full tanks allowed for 50 to 60 days cruising.

(I) DEPTH UNDER THE KEEL - a gauge showing the depth from your sub to the ocean bottom. When this gauge reads zero you will run aground. Maximum reading on this gauge is 500 feet.

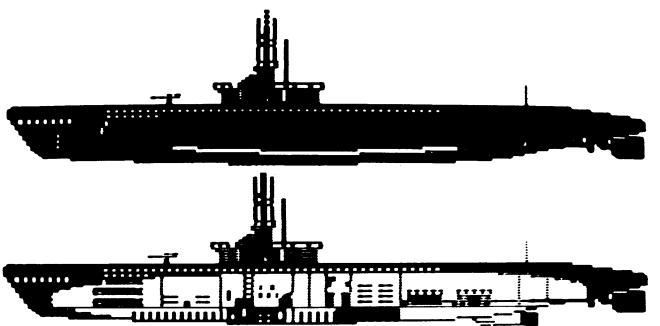
(J) WATER TEMPERATURE - a gauge showing the temperature of the water outside the submarine. A blue dial hand indicates that the submarine is below a thermal gradient layer.

(K) "CHRISTMAS TREE" - light indicating the status of all hull openings. Green light indicates closed, red light indicates open. Hull openings are closed automatically when you give the order to dive.

(L) COMPASS - indicates the direction the submarine is heading.

(M) THROTTLE - 0-4 throttle settings. All stop, 1/3, 2/3, full and flank speeds.
(N) CLOCK - shows the time of day. The sweep hand shows MINUTES and the number printed below is the HOUR (0-23) in 24 hour time. Dusk in the Pacific is from 7:00 PM (Hour 19) to 8:00 PM (Hour 20), dawn is from 5:00 AM to 6:00 AM.
(O) DIVE BUBBLE - a horizontal tube showing whether the submarine is diving or surfacing.

DAMAGE REPORTS BATTLE STATION



This screen indicates the nature of any damage to the submarine. Damage may be caused by depth charge attacks or enemy gunfire. Types of damage include:

Bow/Aft torpedo damage: these torpedo tube doors have been damaged. The torpedoes will not fire.

Periscope damage: the periscope housing has been damaged. The periscope cannot be lowered or raised.

Dive Plane damage: the bow and stern dive planes have been damaged. The submarine will only dive or surface at half its normal rate.

Fuel Leaking: the external fuel tanks are leaking. Fuel will be consumed at twice the normal rate. In addition, fuel rising to the surface will make the submarine easier to detect by enemy destroyers.

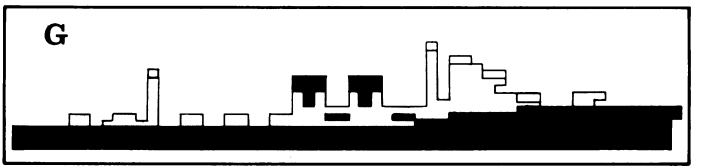
Engine Damage: the main diesel engines are damaged. Surface speeds are reduced by half.

Machinery Damage: internal pumps and engines are damaged. The extra noise make the enemy's sonar tracking easier.

Battery Damage: batteries are used up at twice the normal rate when submerged.

If the "Port Repairs Only" reality level is not selected, repairs are attempted by the crew automatically.

If your sub is taking on water, the leakage rate is indicated in gallons per second (GPS). Leakage will often cause your sub to descend, although the dive planes may be able to counter-act the dive. This information is provided in the top right hand side of the Damage Reports Screen.



SUB CONTROL DIAGRAM and STATUS AREA

The bottom few lines of most battle station screens contain the sub control diagram and the status area. (The Atari ST and Amiga versions have mouse menus — see below.) The sub control diagram on the left is a rear view of your sub with the current rudder, dive plane and throttle settings displayed. Left and right arrows indicate left/right rudder, up and down arrows indicate up/down dive planes, and a number 0-4 shows the throttle setting. The bottom line displays your current speed (in knots), depth (in feet) and heading (in degrees). The top line is used to keep you informed of status messages from the crew.

Mouse Menu: On the Atari ST and Amiga versions, icons control rudders, depth, periscope up/down and rotate view, zoom/un-zoom, throttle (speed) and time scale. Use your mouse to point to the action desired and press the **left** mouse button to select the command.

The icon that controls rudders and depth is a four-way arrow. Select the top or bottom arrow for surfacing or diving. Select the right or left arrow for right or left rudder; select it twice for right full rudder or left full rudder. Select the **center** of the arrow to cancel all dive plane and rudder actions.

MESSAGES and SOUNDS

You may receive messages at any time from various members of the crew. Rudder, throttle, and periscope commands will be acknowledged. You will also hear the sound of your own engines, nearby ships, and torpedoes. In addition there are messages and sounds with special meanings:

SONAR REPORTS DESTROYERS CLOSING. ("ping" sound)
The sonarman is reporting that the submarine has been located by the enemy's sonar.

SONAR REPORTS DEPTH CHARGES DROPPED. ("splash" sound)
The soundman is reporting that a destroyer overhead has dropped depth charges into the water.

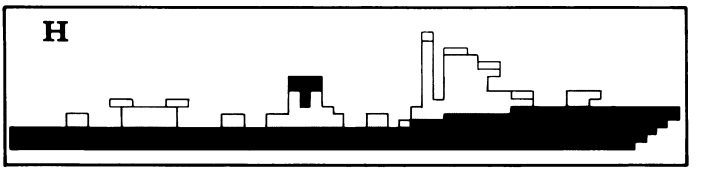
DEPTH CHARGES EXPLODING! (explosion sounds)

LOOKOUTS REPORT DESTROYERS FIRING. (gun sound)
Lookouts on the bridge are reporting that enemy destroyers are in range and are firing at the sub.

SHELL HIT!! SUB DAMAGED. (whistling explosion sound)
Your submarine has been hit by a destroyer's shell. Damage has been sustained.

BOW (AFT) TORPEDO FIRED! 135' TRACK. (torpedo launch, torpedo motor sounds)
One of your torpedoes has been launched in the direction indicated.

DECK GUN FIRED! (gun fire sound)
You have fired your deck gun in the direction indicated.



SONAR REPORTS DISTANT EXPLOSIONS. (distant explosion sound)
The sonarman is reporting a torpedo or gun hit.

WARNING: TEST DEPTH EXCEEDED. (hull creaking sound)
You have exceeded the sub's rated test depth, small leaks are starting. (Check the Damage Reports screen.)

WE HAVE RUN AGROUND! (grinding sound)
Your sub is scraping the bottom. You will be stopped until you rise off the bottom.

REPAIRS COMPLETED.
Work parties report that they have repaired a damaged component; check the Damage Reports screen.

BLOW EMERGENCY TANK! (alarm sound)
The emergency bouancy tank has been emptied.

RAMMED BY ENEMY SHIP! (grinding sound)
You have been rammed by an enemy ship and will start to sink. This is usually fatal.

TIME SCALING

In order to ensure accuracy, all ship movement, sightings, torpedo runs, and dive rates are recalculated every two seconds of simulated game time. However, under most conditions it is desirable to speed up the action somewhat. Normally the simulation proceeds at four times real time: one minute of game time takes 15 seconds. If the "F" key is pressed, the time scale is doubled. Repeated pressing will continue to increase the time scale up to a maximum of 32 times real-time (i.e. one hour of game time will take 2 minutes at time scale 4). When the "N" command is entered, you are detected by the enemy or torpedoes are fired, the time scaling returns to normal.

END OF MISSION, SCORING, and RANKS

Convoy Action missions end when you select the "End of Game" option. War Patrol missions end when you return to one of your bases. Either mission type ends if you are sunk or beached. In all cases you will see a screen displaying all ships which you have sunk and your final rank.

Many patrols failed to sink any enemy ships, while successful captains often sank over 15,000 tons. Your mission is to sink the highest tonnage of shipping without losing your sub. The simulation records your sinkings automatically. Your ranking will be based on tonnage sunk, difficulty level, and reality levels chosen.

Press "F7" from this screen to embark on a new mission.

SUBMARINERS' HALL OF FAME

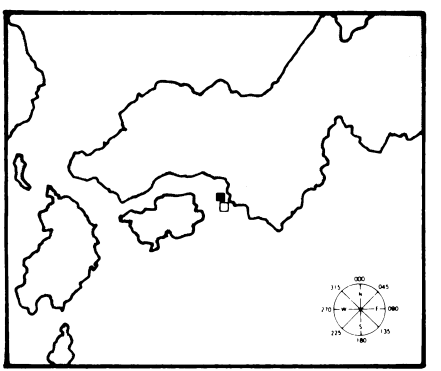
If you have a successful cruise, you will be prompted to enter your name. Type your name on the keyboard, then press RETURN. The Hall of Fame records the best rankings achieved and also includes real-life tonnages sunk by five submarines in actual war patrols. Remember that your rank is computed from both tonnage sunk and the difficulty factors used.

CONVOY ACTION SCENARIOS

Convoy action scenarios are shorter scenarios which place you in specific historical situations. They are useful for becoming acquainted with the features of this simulation, practicing specific tactics, or when time is short.

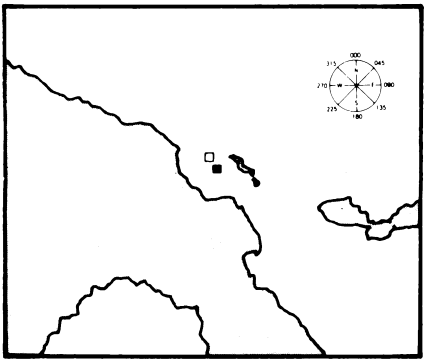
PLUNGER IN THE INLAND SEA (Lt. Commander D.C. White)
Day/Submerged
Jan. 18, 1942, Latitude 33-30 N, Longitude 135-00 E.
Radar, Steam Torpedoes, 300 ft. hull

The USS Plunger, patrolling off the southern coast of Japan, sights an escorted cargo ship steaming east at high speed. This scenario gives you the opportunity to set up a torpedo firing solution against a moving ship. Remember that even though the Torpedo Data Computer calculates the correct lead gyro angle to hit the target, it is often a good idea to fire a spread of torpedoes in case your target changes course unexpectedly.



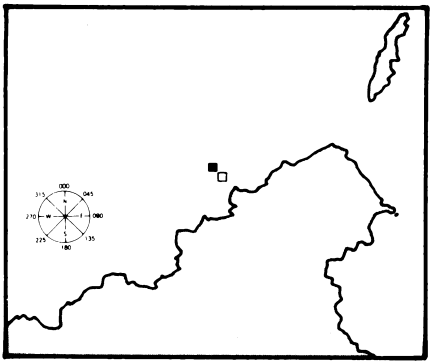
WAHOO VS. CONVOY (Lt. Commander "Mush" Morton)
Day/Surface
Jan. 26, 1943, Latitude 2-37 N, Longitude 139-42 E.
Radar, Steam Torpedoes, 400+ ft. hull

Off the New Guinea coast, USS Wahoo sights a small Japanese convoy. The situation is a submariner's dream: an unescorted convoy including a troop ship and a large oil tanker. However, the convoy has radioed for help and a destroyer is on the way! Your objective is to strike quickly and cause as much damage as possible. Be sure to use your aft torpedoes if your bow tubes are exhausted.



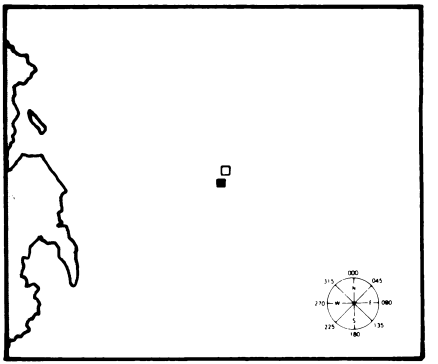
HAMMERHEAD AT BORNEO (Commander J.C. Martin)
Night/Radar
October 1, 1944, Latitude 6-30 N, Longitude 116-11 E.
Radar, Steam Torpedoes, 400+ ft. hull

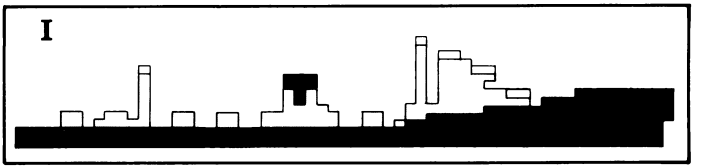
SJ radar picks up a large escorted convoy as the USS Hammerhead patrols the northern coast of Borneo. The tanker, one of Japan's dwindling handful remaining at this stage of the war, should be your primary target. This scenario introduces night combat against an escorted convoy. You should take care to avoid being spotted as long as possible; use moderate speeds, keep a minimum profile toward the escort, and try to time your attack so that the escort is on the other side of the convoy.



SEARAVEN AT TOAGEL MLINGUI (Commander H. Cassedy)
End around
January 13, 1943, Latitude 9-12 N, Longitude 130-38 E.
Radar, Steam Torpedoes

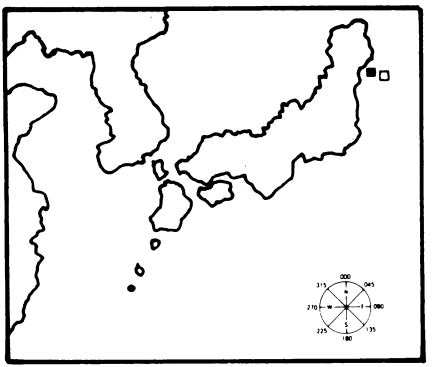
Somewhere between the Philippine Islands and the Japanese naval base at Truk Lagoon, USS Searaven comes across a northbound convoy. You are in a bad position: astern of the convoy in daylight. A careful "end-around" maneuver is recommended. Be sure to use the time scaling feature to speed up your run around the convoy.





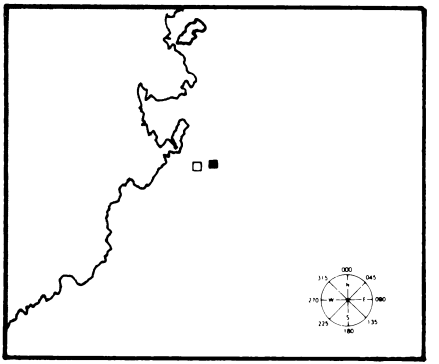
TAUTOG AT NIGHT (Lt. Commander Sieglaff)
Radar/Visual Night
March 16, 1944, Latitude 42-25 N, Longitude 144-55 E.
Radar, Steam Torpedoes, improved detonator, 400+ ft. hull

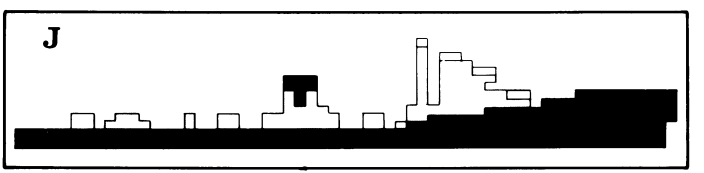
Off the eastern coast of Japan, USS Tautog encounters a Japanese convoy. Night attacks depended very much on the prevailing visibility conditions. During poor visibility, a low lying sub could safely close with its target on the surface. If visibility was good, however, somewhat more caution was required.



GRAYBACK IN THE CHINA SEA (Lt. Commander J.A. Moore)
Submerged Radar
October 21, 1944, Latitude 26-48 N, Longitude 124-56 E.
Radar, Electric Torpedoes, 400+ ft. hull

A very difficult situation. Three radar-equipped escorts are guarding the convoy! Your best hope is a dawn or dusk periscope attack.

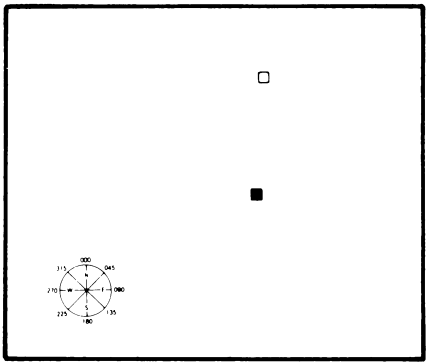




(ATARI ST AND AMIGA ONLY)
CAVALLA HITS THE JACKPOT (Commander H.J. Kossler)
Day/Submerged
June 19, 1944, Latitude 11-50 N, 137-57 E
Radar, Electric Torpedoes, 400+ ft. hull

Cavalla, patrolling near Palau on her maiden voyage, makes an exciting discovery: a group of Japanese warships, including two cruisers and an aircraft carrier, is approaching at high speed! A warship convoy is faster than a submarine,

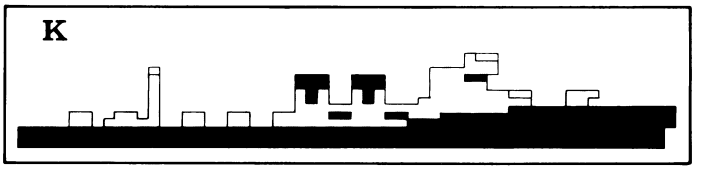
so you'll only have one chance to sink or cripple the big ships before they sweep on past. Your prime target should be the carrier, but if your position is too unfavorable, go for one of the cruisers. **Be wary!** The escorts are alert and dangerous, and the cruisers are deadly if you surface.

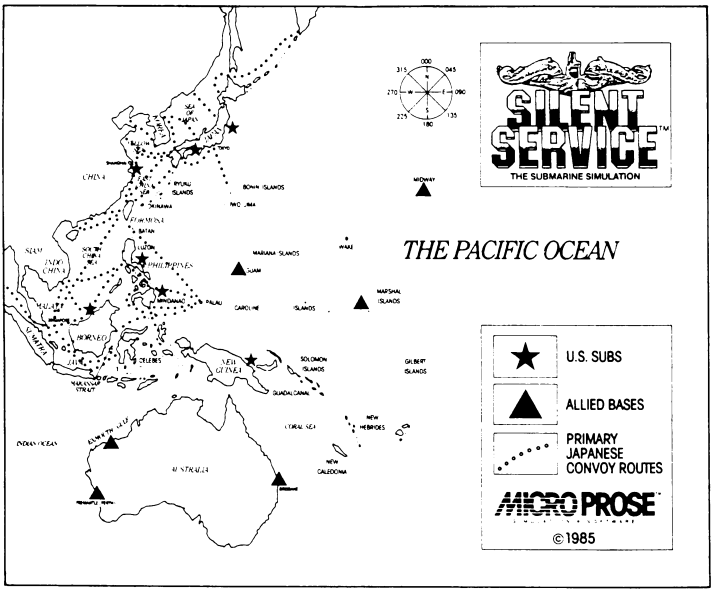


WAR PATROL SCENARIOS

The War Patrol scenarios are the true test of a submariner's skill. Your mission is to scour the Japanese convoy lanes; to find, attack and sink the maximum tonnage of enemy shipping. You will encounter a wide variety of situations, opportunities and dangers. Note that each submarine is differently equipped — your tactics should take into account the strengths and weaknesses of your sub.

For an overview of Japanese convoy lanes, see the map on pages 24 and 25. All of these convoy lanes are active in scenarios that occur early in the war. As the war progressed, and the area of the Pacific controlled by Japan gradually shrank, it became very difficult to find convoys in areas distant from Japan. In the scenarios that occur later in the war, it is easiest to find targets in the waters around the islands of Japan.




SILENT SERVICE™
THE SUBMARINE SIMULATION
THE PACIFIC OCEAN
U.S. SUBS
ALLIED BASES
PRIMARY JAPANESE CONVOY ROUTES
MICRO PROSE
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CHINA
JAPAN
SEA OF JAPAN
YELLOW SEA
EAST CHINA SEA
RYUKYU ISLANDS
OKINAWA
FORMOSA
BATAN
LUZON
PHILIPPINES
SOUTH CHINA SEA
SIAM
INDO CHINA
MALAYA
BORNEO
CELEBES
SUMATRA
JAVA
MARIANA ISLANDS
GUAM
PALAU
CAROLINE ISLANDS
MARSHAL ISLANDS
WAKE
MIDWAY
BONIN ISLANDS
NEW GUINEA
SOLOMON ISLANDS
GUADALCANAL
GILBERT ISLANDS
NEW HEBRIDES
CORAL SEA
NEW CALEDONIA
AUSTRALIA
INDIAN OCEAN
ARAFURA SEA
TIMOR SEA
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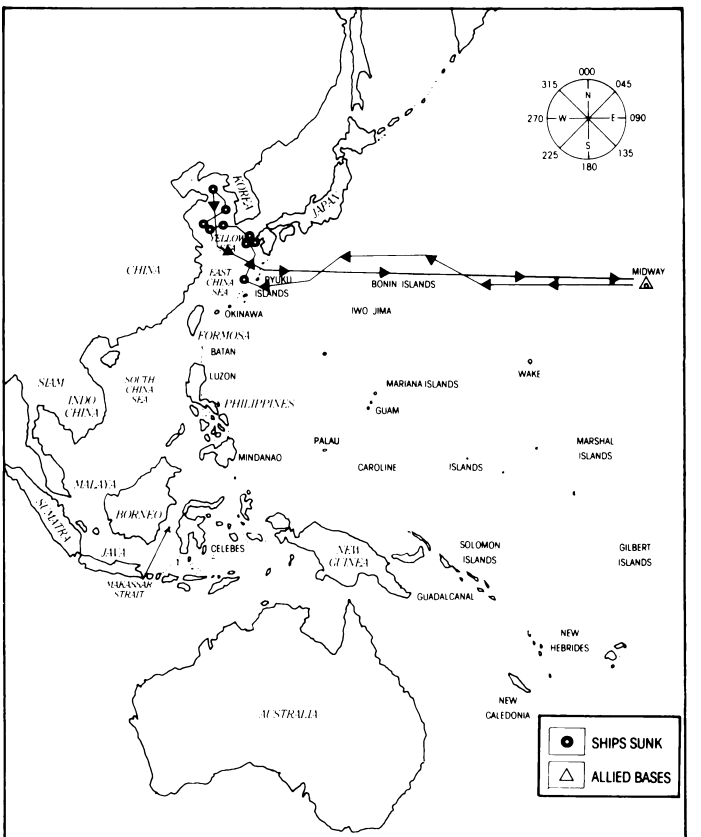
315

USS TANG — Midway Patrol, June, 1944

Radar, Electric Torpedoes with improved detonators, 400+ ft. hull

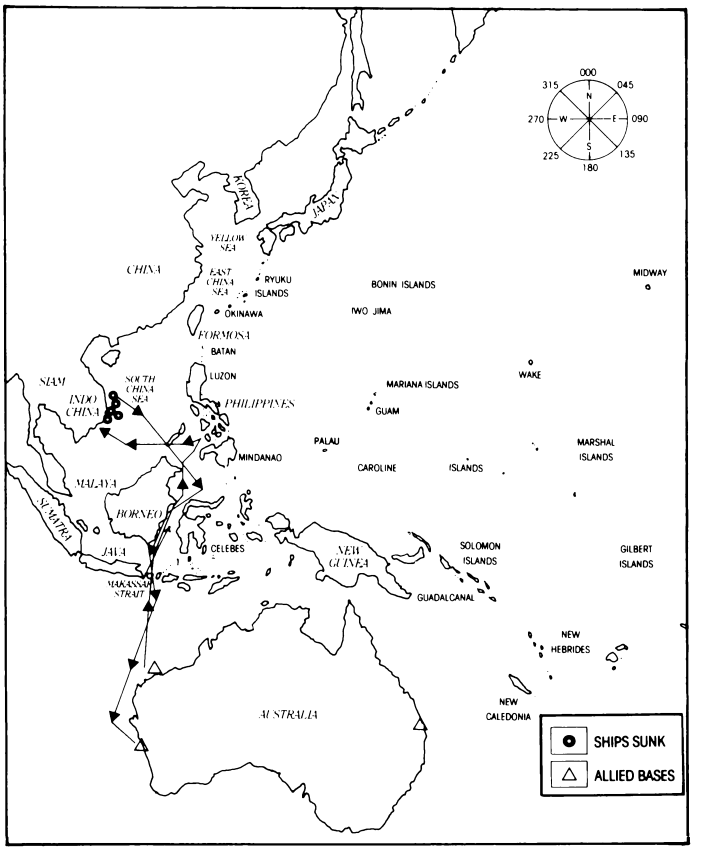
The USS TANG was the second leading submarine, with 24 confirmed sinkings between Feb. 17 and Oct. 25, 1944. On TANG's third war patrol her captain took her deep into the Japanese-controlled Yellow Sea. In a span of only fourteen days, she sank ten enemy cargo ships, including four in one day! This unsurpassed achievement earned TANG the Presidential Unit Citation.



USS BOWFIN — Fremantle Patrol, November 1943

Radar, Steam Torpedoes (old detonators), 400+ ft. hull

The BOWFIN, based in Australia, sank 16 Japanese ships under four different skippers. The BOWFIN's second patrol took her from Australia, through the Makassar Strait, to the Philippines. After patrolling fruitlessly off the Philippines, BOWFIN crossed the South China Sea to the coastal waters of Indo-China. There she encountered two convoys and sank five ships in the course of three days in spite of a number of torpedo problems.

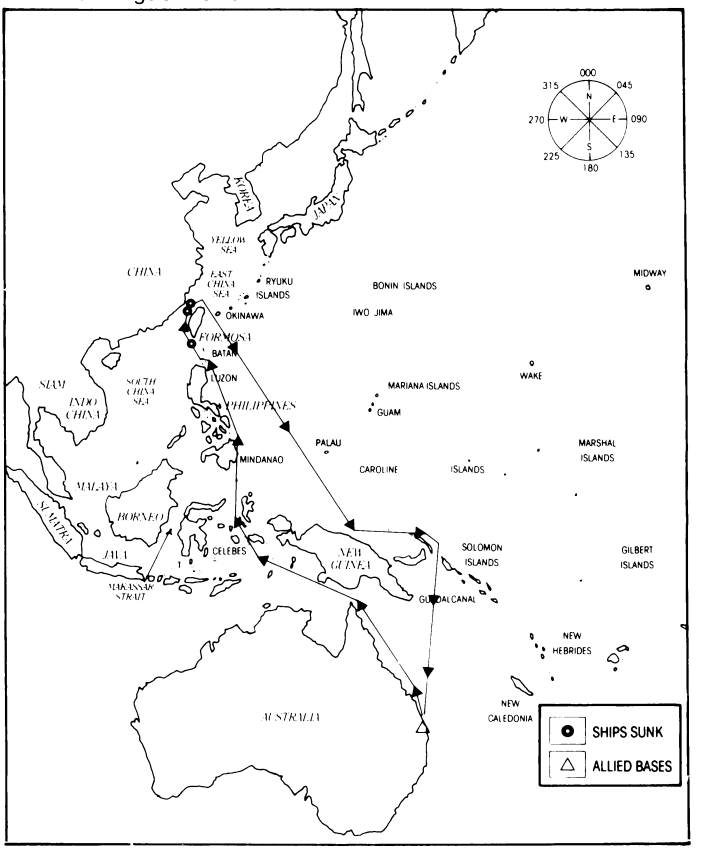


USS GROWLER — Second Patrol, August, 1942

Surface Radar, Steam Torpedoes, 300+ ft. hull

One of the first fleet-type submarines to enter the battle, the GROWLER was famed for the heroism of her captain, H.W. Gilmore. After a collision with a Japanese gunboat, Gilmore ordered an immediate dive although he lay badly wounded on the bridge, thereby giving his life to save his ship.

The GROWLER's second patrol originated in Brisbane. Off the coast of Formosa she sank over 15,000 tons of shipping — an excellent patrol at this critical stage of the war.

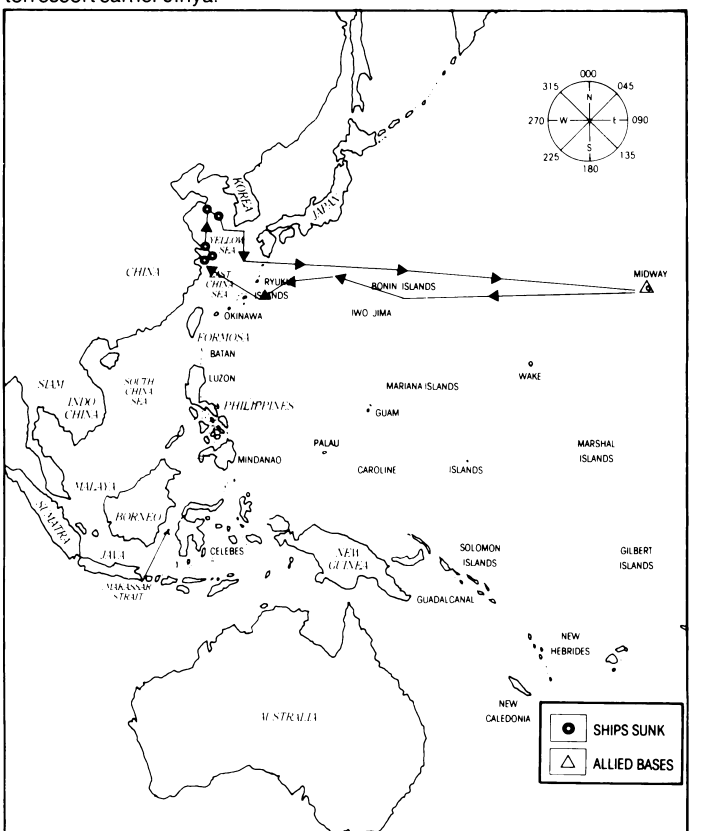


USS SPADEFISH — Second Patrol, October, 1944

Radar, Electric Torpedoes with improved detonators, 400+ ft. hull

The SPADEFISH entered the fray late in 1944. At this point in the war most Japanese escorts were equipped with radar. In spite of her late start, SPADEFISH sank 21 vessels for a total of 88,000 tons.

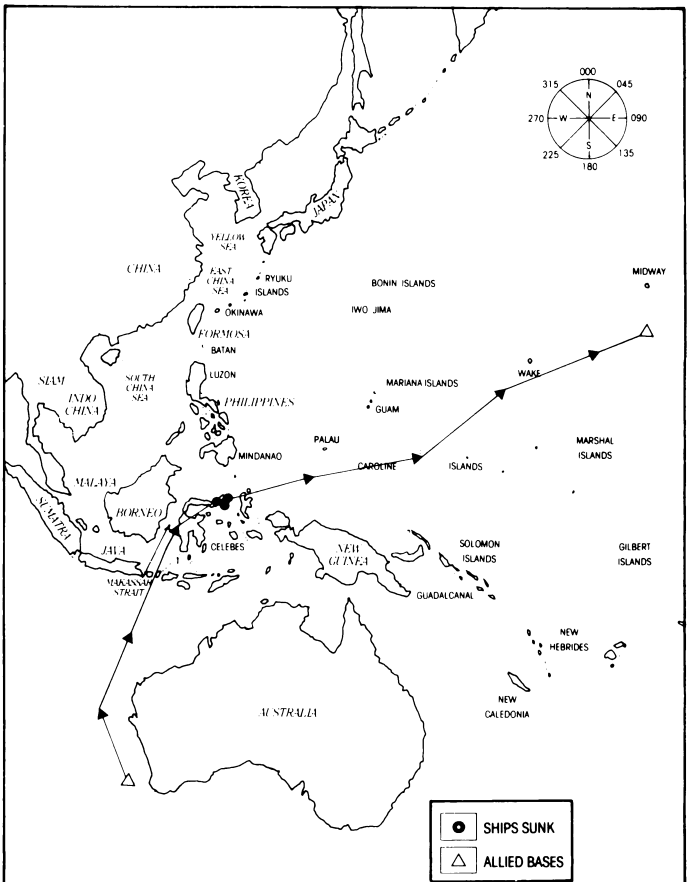
On her second patrol, two weeks out of Pearl Harbor, SPADEFISH happened upon a heavily escorted convoy in the East China Sea. After persistent tracking, SPADEFISH sunk the heart of the convoy: the 20,000 ton escort carrier Jinya.



USS SEAWOLF — Seventh Patrol, October, 1942

Radar, Steam Torpedoes, 300+ ft. hull

Another early arrival in the Pacific, the USS SEAWOLF went on to become one of the most successful subs of the war. Her second patrol included a memorable battle against a Japanese naval force off Christmas Island.



SUBMARINE TACTICS

A successful submarine attack was very much a team effort by the entire submarine crew, with the captain directing. The torpedomen and machinists mates maintained the torpedoes and engines. The soundman listened to the enemy ships through sensitive underwater hydrophones. By counting propeller revolutions and rotating the hydrophone, the soundman could estimate the enemy's speed and bearing. A radar party tracked the enemy on SJ surface radar. In the conning tower, the tracking party plotted the submarine's position and the position of enemy targets and escorts on the attack plot map. The identification party stood ready to identify enemy ship types as the captain called out his periscope observations. On the bridge, lookouts scanned the seas for enemy ships. As the submarine approached the enemy, tracking party fed the enemy's speed, course, range, and bearing into the Torpedo Data Computer to calculate the correct gyro angles for torpedo firing.

At the focus of this activity, the captain made the crucial decisions which spelled the difference between success or failure. Carefully weighing the number of escorts, the types of ships, visibility, water depth, number of torpedoes remaining, battery charge, the convoy's course and speed he decided how, when and where to attack the enemy.

With their low surface profile and ability to submerge, stealth and surprise were a vital ingredient in all submarine attacks. Once an enemy ship or convoy had been spotted a successful attack required a well thought out approach to within a few thousand yards of the enemy without being detected; quick and decisive torpedo aiming and firing; and the clever use of speed, depth, and water temperture to evade the inevitable counterattack.

THE APPROACH

The first priority upon sighting an enemy convoy was to determine its course and composition. At this point the decision to attack would be made. Next, the captain would direct his sub to a position ahead or on the beam of the convoy while remaining undetected. During daylight, the captain waited submerged, letting the convoy come into firing range. At night a surface attack was called for although visibility varied greatly with haze and moonlight. During the dawn/dusk hour the periscope was usable but the submarine remained difficult to see, making this an ideal time for an attack.

The key to the approach phase was to achieve a favorable firing position without being detected by the enemy's escorts. As a result of the submarine's slow underwater speed, much of the maneuvering during the approach had to be conducted on the surface, which made the sub vulnerable to detection. US radar could detect ships at a range of 16,000 yards (8 miles) or more. This generally gave the submarine the initiative as Japanese lookouts might see a sub at 10,000 yards during the day or 3,000 yards at night. When submerged, passive (listening) sonar could track Japanese ships at up to 6,000 yards, although this range lessened quickly if the sub was moving or at depth. Japanese sonar could detect a rapidly moving submerged submarine at up to 5,000 yards, although at maximum depth and rigged for silent running, they were very difficult to find. Both during approach and escape the captain would attempt to provide a minimum profile to the enemy by pointing the sub directly towards (or away from) the enemy. Even when submerged, a minimum profile provided the smallest sonar target to the enemy destroyers.

SUB DETECTION TABLE (10 knots)			
		DAY	NIGHT
SURFACED	DISTANCE IN YARDS		
Full Profile		20000	3000
Minimum Profile		8000	1000
PERISCOPE DEPTH			
Full Profile		6000	2000
Minimum Profile		2000	800
SUBMERGED*			
Full Profile		2000	2000
Minimum Profile		800	800

*if the submarine was under a temperature gradient layer, the sighting range was substantially less.

TORPEDOES

Primary submarine armament consisted of six torpedo tubes forward and four tubes aft. A total of 24 torpedoes were carried: 14 forward and 10 aft. A torpedo reload required about 10 minutes.

TORPEDO DATA COMPUTER

Contrary to popular belief, the captain did not estimate an amount by which to "lead" the target. US submarines used a Torpedo Data Computer (TDC), an early-model analog device. The TDC, when fed with the target speed, range, and course, automatically calculated the correct torpedo track. The TDC calculated and fed the gyro angle directly to the gyroscope which steered the torpedoes.

The gyro angle calculated by the TDC was based on the target's maintaining a constant course and speed. The captain would often aim slightly ahead or behind the target ship if he expected a particular change in course. Frequently a "spread" of torpedoes was fired by aiming one torpedo slightly ahead of the target, one torpedo directly at the target, and one torpedo slightly behind the target.

In this simulation the gyro lead angle is automatically added to your periscope bearing when the torpedoes are fired. Example: you have an enemy ship centered squarely in your crosshairs, bearing 090 degrees (due East). The target is on a course of 180 (South). The TDC calculates a gyro angle of 10 degrees. If you fire a torpedo it will assume a 100 degree track: (your 090 degree periscope bearing plus 10 degrees gyro angle) and should hit the target. In the same situation, if your periscope is pointed at 085 (slightly behind the target) your torpedo will assume an 095 track (85 + 10). This torpedo should pass behind the target but may hit if the target zigs or zags.

The captain's role during the firing procedure was to call off range, bearing, and angle on the bow information which were input into the TDC and to select the moment to fire the torpedo(es).

DECK GUN

Most US subs were equipped with a 4-inch deck gun. This gun had a range of up to 8,000 yards and a fairly rapid rate of fire. Although infrequently used, the deck gun was effective in sinking badly damaged targets or to slow a ship down and force it to fall behind the convoy. The gun was also used as a last ditch measure by subs which had been forced to surface or had suffered too much damage to dive safely.

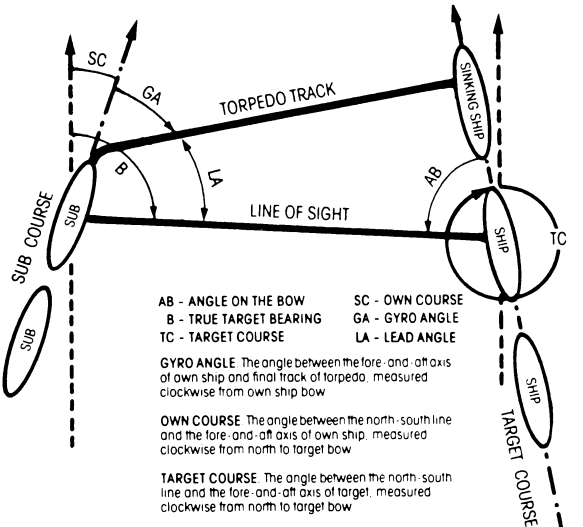
The gun may only be fired when your sub is on the surface. Use the crosshairs on the periscope/binocular screen to aim the gun. The range is automatically set to the TDC range of the target at which you are aiming. Use the "+" and "-" keys to add or subtract deflection from this range. Example: an 18 knot destroyer coming directly towards you from 4,000 yards away will move over 200 yards in the time it takes the shell to reach the target. Therefore you should use the "-" key to select a deflection of -200 to -250 yards before firing the gun. At 2,000 yards the shell will only take half the time to reach the target, so a -100 yard deflection should be used. More than one shell may be in flight at any one time. You will see a splash of water when the shell lands. If the shell hits its target, you will see and hear the explosion. Your gun is supplied with 80 shells.

ESCAPE

If detected by enemy escorts, escape became the sub's main objective. A submarine was no match for even a single destroyer in a gun and ramming duel. The usual tactic was to dive as deeply as possible and rig for silent running. The enemy escort would circle over the last known position of the submarine, hoping to pick up a sonar echo from the submarines hull. Maintaining a minimum profile and minimum running noise was especially important under these circumstances. A strong temperature gradient could also provide some protection from the enemy's sonar. Leaking fuel or machinery damage made the escort's job easier. Submarines gained some benefit from their tighter turning circle and ability to constantly track the escorts propeller noises. Under extreme circumstances, a sub might try to convince the attacking destroyers that it had been destroyed by releasing oil and debris which floated to the surface.

At night the sub's 20 knot surface speed was sometimes sufficient to outrun pursuing escorts.

TORPEDO FIRING TERMINOLOGY



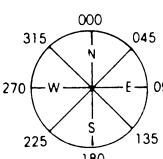
AB - ANGLE ON THE BOW **SC - OWN COURSE**
B - TRUE TARGET BEARING **GA - GYRO ANGLE**
TC - TARGET COURSE **LA - LEAD ANGLE**

GYRO ANGLE. The angle between the fore-and-aft axis of own ship and final track of torpedo, measured clockwise from own ship bow

OWN COURSE. The angle between the north-south line and the fore-and-aft axis of own ship, measured clockwise from north to target bow

TARGET COURSE. The angle between the north-south line and the fore-and-aft axis of target, measured clockwise from north to target bow

ANGLE ON THE BOW. The angle between the fore-and-aft axis of target and the line of sight (LOS), measured from target bow to starboard or port

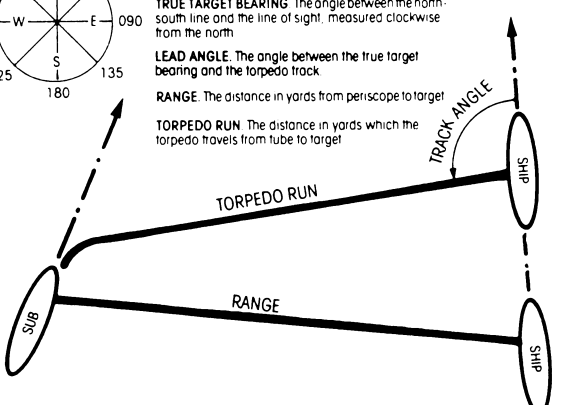


TRUE TARGET BEARING. The angle between the north-south line and the line of sight, measured clockwise from the north

LEAD ANGLE. The angle between the true target bearing and the torpedo track

RANGE. The distance in yards from periscope to target

TORPEDO RUN. The distance in yards which the torpedo travels from tube to target



JAPANESE CONVOYS

Japanese shipping generally travelled in small convoys of three to seven ships. Occasionally, cargo ships and warships might travel alone. As the war progressed and Japanese losses mounted, increasing numbers of escorts were assigned to these convoys. Convoys may consist of cargo ships, troop ships, tankers, and destroyer escorts.

Tankers were the most important target class. These ships transported troops to and from their far-flung island conquests. You are more likely to find these valuable ships among the shipping lanes which lead directly to Japan.

Cargo ships represented the majority of Japanese shipping. They conveyed supplies and equipment to and from the Japanese homeland.

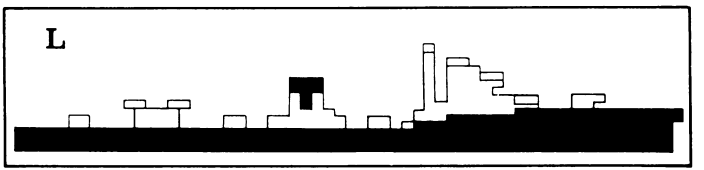
Escorts came in two classes: destroyers were often used for escort duty, especially in important convoys. The Japanese also constructed a special class of escort for anti-submarine defense: the "kaibokan". Both destroyers and kaibokan were armed with guns to engage submarines on the surface, sonar to detect submarines below the surface, and depth charges to sink them. A submarine on the surface could outrun a Kaibokan, which had a top speed of less than 20 knots. Destroyers could steam at close to 30 knots.

A twisting, speeding, shallow-draft escort was a very difficult torpedo target, although a single hit was generally sufficient to sink one.

Japanese convoy traffic tended to concentrate along the routes between major ports. Refer to the convoy route map for details.

JAPANESE TACTICS

Japanese escorts were formidable opponents. Their optical and sonar equipment were of excellent quality and Japanese gunnery was outstanding. The primary deficiencies were depth charges which tended to be set too shallow and the lack of surface radar until late in the war. This encouraged the night-surface attack and deep submergence as an evasion technique. The Japanese also had a tendency to give up the hunt once contact was lost, although some experienced escorts showed more persistence.



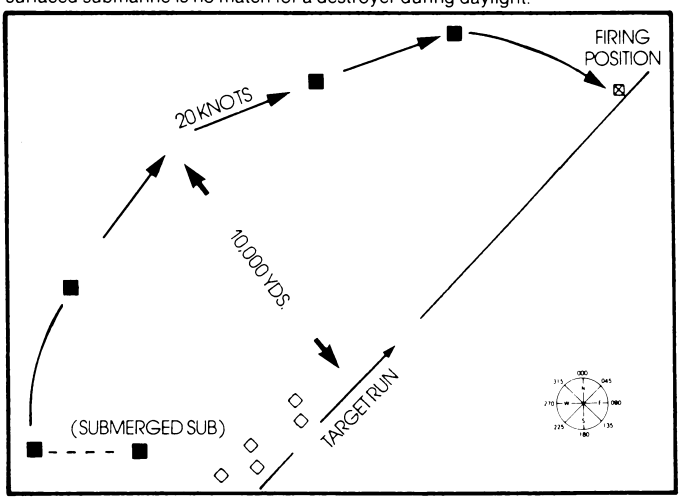
TACTICAL SITUATION PLOTS

The diagrams below will provide some sense of the combat situations faced by submarine captains. These are by no means all of the potential situations which you will encounter. They are presented here as examples of real-life submarine tactics and to assist you in surviving the myriad dangers of undersea combat.

Situation 1: END AROUND ATTACK

You are at periscope depth and have just sighted a 10-knot convoy bearing 090 degrees (due East). You determine the enemy's base course to be 045 (Northeast). It is around noon: seven hours of daylight remain. The convoy is escorted by at least one destroyer. Your torpedo tubes are full and your battery is fully charged. What is your plan?

This is a difficult situation: the convoy is steaming too fast for a submerged approach. A cautious skipper might leave this convoy alone and look for easier game. A foolhardy captain might charge in for a stern surface attack, but a surfaced submarine is no match for a destroyer during daylight.

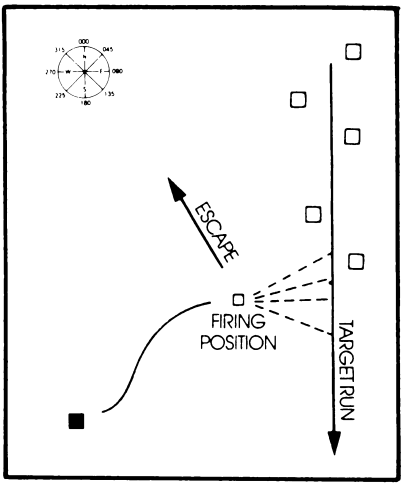


The experienced skipper would probably try the "end-around" tactic. Turn and proceed submerged away from the convoy until you are out of visual sighting range — about 10,000 yards depending on the visibility. Now surface and use maximum speed to achieve a position ahead of the convoy, taking care to stay out of visual sighting range. Track the convoy on radar as you proceed. If an escort leaves the convoy and heads in your direction, you have probably been sighted — dive immediately. It may take some time to carry out this maneuver, use the time scaling feature to speed up the simulation. Once you are in front of the convoy, go to periscope depth and wait for the convoy to come to you. Make your torpedoes count! (Note that this situation is similar to the USS SEARAVEN scenario)

Situation 2: NIGHT/SURFACE INTERCEPT

You are patrolling on the surface when radar picks up a convoy bearing 045 (NorthEast). It is a dark and hazy night. Radar determines the enemy's base course

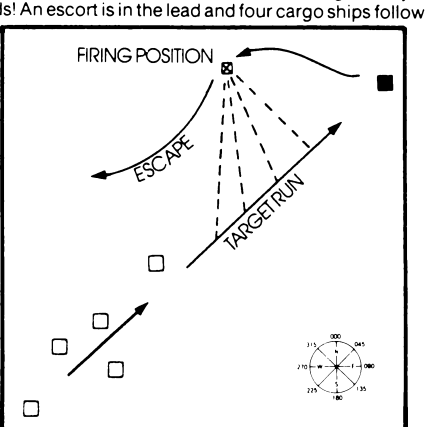
to be 180 (South) at 8 knots. Two "kaibokan" escorts appear to be leading the convoy. What do you do?



This is an excellent set up. You are ahead of the convoy and visibility is poor. Your primary consideration should be to avoid detection by the escorts as you approach the convoy. Use moderate speed and keep your bow pointed towards the escorts as much as possible. This provides only a small visual target for the enemy lookouts to detect. You should be able to reach an ideal firing position off the convoy's beam at a range of 1,000-2,000 yards. If you time your approach when the escorts are busy on the other side of the convoy, you may be able to escape on the surface: the "kaibokan" can only turn 18 knots. Good Luck! (Note that this situation is similar to the USS HAMMERHEAD scenario)

Situation 3: DAYLIGHT/SUBMERGED ATTACK

During a routine day periscope sweep you observe a convoy heading directly towards you: range 4,000 yards! An escort is in the lead and four cargo ships follow in a diamond pattern. Act quickly!

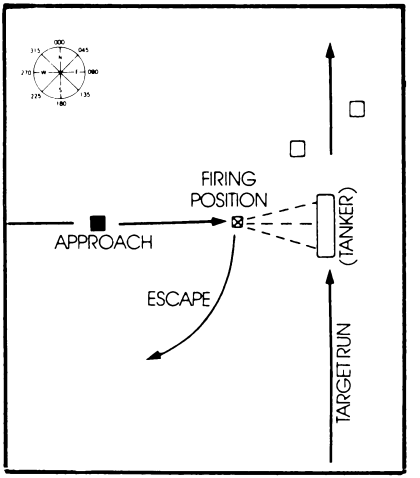


You should immediately head perpendicular to the convoy's track to put yourself into a favorable firing position for a broadside torpedo shot. Since you will be turning your broadside to the enemy you should dive to reduce the chance of sonar contact. Once in firing position, wait until the two middle ships give you an "overlapping" target. Torpedoes which miss the closer ship then have a good chance of hitting the further ship.

Situation 4: AVOIDING ENEMY ESCORTS

You have just loosed three steam torpedoes at a particularly juicy tanker. The two escorting destroyers have not detected your presence. You are at periscope depth during daylight.

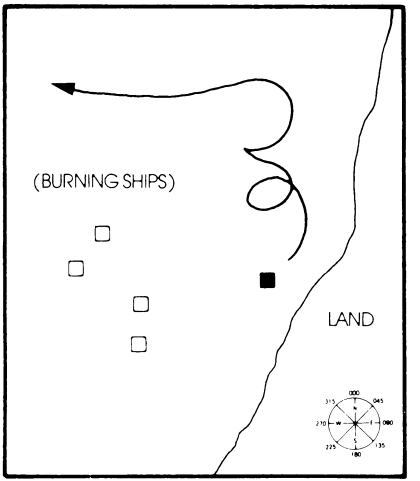
It is extremely tempting to watch your torpedoes as they head towards the target. You will only do this once! As soon as your torpedoes reach their target, the bubble trails will point directly to your firing position. At 26 knots, the destroyers will be there quickly. You must get away immediately. Head away from the destroyers at maximum speed, dive as deeply as possible. If the destroyers get close, minimize your speed to reduce noise. Two escorts can be very dangerous, as it is usually impossible to present a minimum sonar profile to both ships.



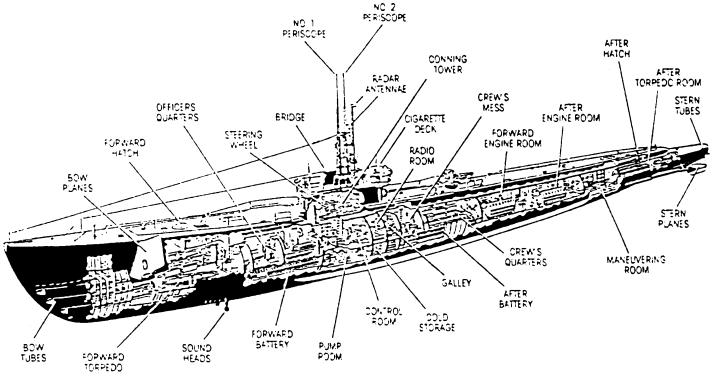
Situation 5: SHALLOW WATER ESCAPE

You are in trouble! Behind you three cargo ships are burning from a well-planned torpedo salvo. But an angry escort is charging towards you. The constant pinging leaves no doubt that you have been detected. To make matters worse, you are close inshore in less than 100 feet of water! What now?

You are probably in for a long afternoon. At this depth, a depth charge attack might well be fatal. Your best bet is to use your sub's tight turning circle to prevent the escort from getting directly overhead. Follow him on the attack plot map; try to anticipate his maneuvers. Use maximum forward and reverse speeds to dodge him. Whenever you get a chance, head out towards deeper water — it is your only chance for escape.



TYPICAL U.S. SUBMARINE



CAPABILITIES

The US Fleet Submarine of the Second World War was an outstanding weapon. With 200 tons of diesel fuel and a cruising range of 12,000 miles, no area of the Pacific was safe for enemy shipping. Four diesel engines produced 6,400 horsepower for a maximum surface speed of 20 knots. Battery driven electric motors provided submerged propulsion at up to 10 knots for short periods. The rated test depth of the first fleet submarines was 300 feet, while later craft were rated for more than 400 feet. Both were capable of somewhat greater depths under emergency conditions.

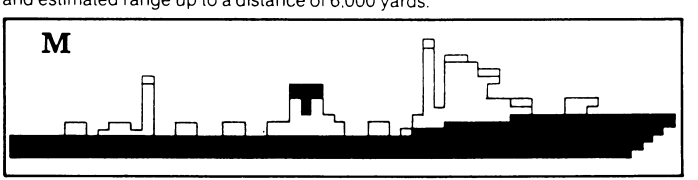
STANDARD EQUIPMENT

The WWII fleet submarine incorporated a variety of navigation, detection, and fire control devices.

The periscope could be used for visual observation to a depth of 44 feet. The scope provided target range and bearing information to the Torpedo Data Computer.

Surface Radar could be used on the surface or at periscope depth. SJ surface radar had a range of up to 16,000 yards.

Passive (listening) sonar became the primary source of information when submerged. Experienced sonar operators could determine ship speed, bearing, and estimated range up to a distance of 6,000 yards.

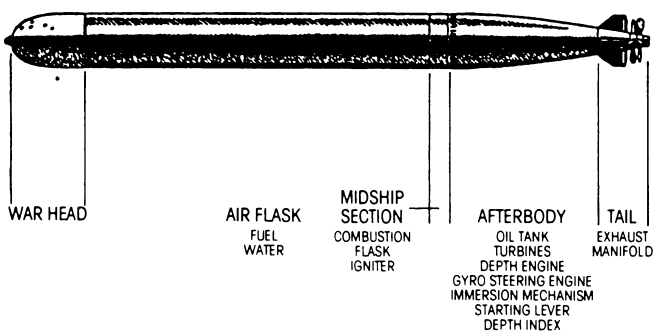


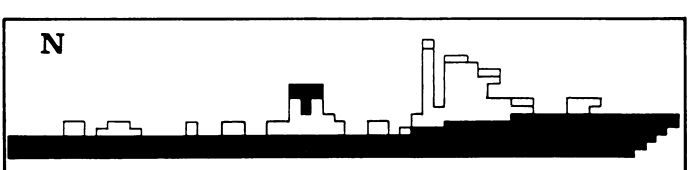
SUBMARINE WARFARE IN THE SOUTH PACIFIC

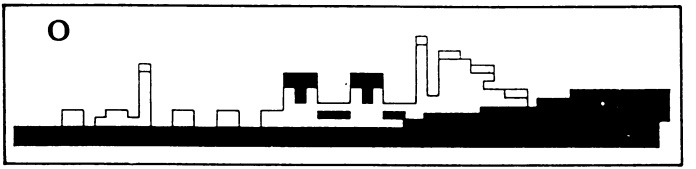
The American fleet submarine was a complex and formidable war machine, ideally suited for the vast reaches of the Pacific and the far-flung Japanese convoy routes. American submariners developed an aggressive doctrine which frequently took them into the heavily travelled waters off the coast of Japan. Sub skippers vied to surpass each other in ships and tonnages sunk. As the war progressed, US sub strength grew from a handful of antiquated craft to a powerful striking force of over two hundred vessels. The ranks of the sub commanders were also transformed as the pressures of undersea warfare weeded out the peacetime sailors and forged an elite cadre of young, aggressive, and skillful captains.

The history of submarine warfare in the Pacific is the story of these men and the highly trained crews they led. Each patrol, each attack was a personal confrontation between these men and a skillful and determined enemy. The Allied victory in the Pacific was in no small measure a consequence of their overwhelming success.

TYPICAL TORPEDO



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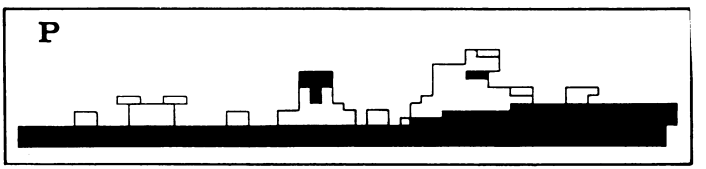
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TIPS TO NEW CAPTAINS

Before you take your boat to sea go over these helpful hints.

Strategic Controls: The War Patrol

When you select a "War Patrol" scenario you start out in a special form of play: the 'patrol' across the Pacific. Your ship is a tiny dot near your starting port of Freemantle on Exmouth Gulf, Brisbane, or Midway (see the map on pages 24 and 25 of the manual).

Joystick (or Cursor Keys) = Patrol Movement: These move your ship around the Pacific ocean.

Fire Button (or Keypress) = Patrol Exit: This exits the war patrol and sends you directly to the Map battle station (you bypass the conning tower and zoom directly to the Navigation Map).

If you exit while an enemy convoy is nearby (red ocean, screen border or text message) but you can't see them on the maps, try scanning the entire horizon yourself using the binoculars or periscope.

If you exit when you're at a home port the scenario is over.

While you're patrolling . . . Time moves extremely fast — the light and dark blue changes to the ocean (just the border in some versions) represents the change from day to night.

Finding the enemy: When the ocean turns red (just the screen border in some versions, or just a text message in others) you've spotted a convoy — exit the war patrol if you want to engage in battle.

Getting home: When the ocean turns green (just the screen border in some versions, or just a text message in others), you've touched a friendly port — exit the war patrol if you want to end the patrol and record your score in the Submariners' Hall of Fame.

Important Note: NO OTHER CONTROLS function on the war patrol screen. To make any other controls work you must exit the war patrol.

The Conning Tower

The Conning Tower is a visual reminder of which battle stations you can visit.

Space Bar always sends you to the Conning Tower. (Exception: on the war patrol map you'll bypass the Conning Tower and go directly to the Maps battle station.)

Joystick Controls let you move around the Conning Tower. Pressing the joystick button sends you to that battle station, where you can observe events and perhaps issue orders.

Function Keys (Shift-Number Keys in some versions) immediately send you to a battle station. You must use these in the IBM keyboard-only version.

Important: In most computer versions the battle controls do NOT work in the Conning Tower per se; you must move to a specific battle station to operate your submarine's controls.

Battle Stations & Battle Controls

There are five battle stations where the various battle controls are active. The controls active at any one station are only those appropriate to that station. See pages 15 and 16 in your operations manual for a summary of these controls.

The battle stations are:

Map: Here you can zoom and unzoom between three map scales. In some versions the entire Pacific Map is available for reference. On the map you see what your lookouts, periscope (if up) and sonar detect. Sometimes there are Japanese out there, but you haven't detected them yet! Your lookouts aren't always reliable — it's wise to look around the horizon yourself with the periscope or binoculars.

Bridge: This is a nice place on a sunny day or warm night, and gives you a panoramic view. However, most Captains prefer to fight their ships from the Periscope/Binoculars station.

Periscope/Binoculars: You automatically get binoculars when you're on the surface, periscope if you're submerged. Remember that the periscope won't work if it's lowered, it's at night, or you're below 44 feet depth.

Don't forget that your ship might be sailing on a course quite different from the direction you're viewing on this screen.

TORPEDO or GUNFIRE orders should be given from this screen.

Gauges: This gives a detailed readout of your submarine (see page 13 in the manual for a full explanation of all the gauges).

Damage: If you're under fire or being depth charged, parts of your ship may stop working. Check this station to see what's out of action.

CARRIER COMMAND

CARRIER COMMAND - ATARI ST GUIDE

Before you load Carrier Command, you are advised to read the Mission Briefing. Once you have loaded the game, you should read through the Carrier Operations Guide, trying out the various sections of the Carrier, and familiarising yourself with its operational procedures, but first you should make a backup of the game and keep the original disk in a safe place.

MAKING A BACKUP COPY

Included on the Carrier Command disk is a special copier for making backups of the disk. You are advised to make a backup of the original disk, and always use the backup to play from.

To make a copy, you will need to go to the GEM desktop (either insert a disk which boots up in the GEM environment, or switch on the machine with no disk in the drive, and wait for about a minute). Insert the Carrier Command disk in drive **A** and double click on the **Floppy Disk A** icon, and then on **BACKUP.TOS**. From then on, follow the instructions contained within the program, and ensure that you have a blank disk ready. The copier will detect whether your drive is single or double sided.

LOADING INSTRUCTIONS

Insert the Carrier Command game disk in drive **A** and switch on the computer. After about five seconds the title picture will appear, and the game will load after approximately twenty seconds.

CONTROL DEVICES

Peripherals
Carrier Command supports both mouse and joystick control. The whole game can be played with the mouse, but if the joystick is preferred, the Space Bar is used to emulate the right mouse button. The joystick should be plugged into port 1, and the mouse into port 0.

The game initially has the mouse control selected. To select joystick control, simply move the joystick in any direction, and to reselect the mouse press the left mouse button.

Clicking
The concept of 'clicking' is important to comprehend when playing Carrier Command. When you are requested to click on an icon, press either the left mouse botton, or the fire button if you are using a joystick.

Control Modes
The second concept to familiarise yourself with is that of the two control modes:

In "Pointer Mode", you move a pointer/cursor around the screen with the mouse or joystick. This mode is used to click on icons by pressing the fire button (either the left hand mouse button, or the joystick fire button).

By pressing the right hand mouse button or the Space Bar, you are put into "Direct Control Mode", and in this mode the mouse or joystick movements will actually control your aircraft, Amphibious Assault Vehicles, Carrier, etc.

Key Controls
Although Carrier Command can be played entirely from the mouse, a number of keys are supported to increase the flexibility of the game's control system.

Generally, you can use the up and down arrow keys to accelerate and decelerate the Aircraft, Amphibious Assault Vehicles and the Carrier itself.

The arrow keys will also emulate the four arrow icons on the navigation screens and the Laser Turret targetting screen (one advantage of this is that two keys may be used together to provide diagonal movement), and the **Insert** and **Clr/Home** keys emulate the Zoom In and Zoom Out icons.

The numeric keys **1** to **4** can be used to select which aircraft or tank you wish to control, as an alternative to clicking on the numeric icons.

STARTING THE GAME

Once the game has loaded, you will be presented with the Front End screen.

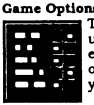
Click on **Strategy Game** if you want to begin a new game of Carrier Command, **Action Game** if you wish to play a mini version of the game to improve your combat skills, or **Load Old Game** to load in a previously saved game position.

A number of file and game management options are available from within the game. Click on the **DISK** icon, and then click on the appropriate icon:

Surrender

This option allows you to abort the game - effectively surrendering to the enemy forces. You will be given a chance to cancel this order.

Game Options



This option allows you to change various user-definable features, by clicking on either the **YES** or **NO** boxes next to each option. These options are saved with your game position.

SAVING THE GAME POSITION

Format Disk

This option allows you to format a disk so that it is suitable for saving game positions.

To format a disk, insert the disk in Drive **A**. Ensure that the disk is blank, or not needed for other use, since the format routine will erase all information that is currently held on the disk. Select the **SINGLE** sided option, even if you are using an Atari ST with a double sided drive.

Once the disk is formatted, you will be able to save game positions to it.

Note: As a by-product of including this option in the game, you are able to use the format routine to format disks for normal use. The Carrier Command formatter actually produces 'turbo' disks, which have either 400k (single sided) or 800k (double sided) of available disk space, and they also use a special disk format which means that files will load at a considerably increased rate.

Save Game

This option allows you to save your current game position to disk, for later retrieval.

Carrier Command uses a special disk format to store its saved games, so before you are able to save a game, you must prepare a disk; for more information, please refer to the **FORMAT DISK** instructions.

Insert the Saved Games disk in Drive **A** and then select the disk area in which you wish the game to be saved. There are four to choose from, and if you select an area which already has a saved game position stored, it will be overwritten by the new position.

If you do not wish to save a game, you may select the **CANCEL** option from this screen.

COLOUR CODING

Atari ST Carrier Command uses the following colour coding for the three island alignments:-

Blue	Friendly island
Red	Enemy island
Green	Neutral island

COMPATABILITY

Carrier Command is compatible with all releases of the Atari ST machine with at least 512K of RAM and TOS resident in ROM. The game is only suitable for colour systems.

MUSIC

Users of Atari ST's with a double sided disc drive (e.g. the 1040 or Mega ST machines, or a 520ST with a double sided external drive) are able to listen to the Carrier Command soundtrack, which will automatically play if the game is left at the Front End for about twenty seconds.

CREDITS

Carrier Command was conceived by Clare Edgeley
Original design by Ricardo Pinto
Coding by Ian Oliver and Graeme Baird at Realtime Games Software Limited
Sound and disk routines by Andy Beveridge
Soundtrack composed and performed by Dave Lowe
Title screen, icons and box artwork by Herman Serrano

CARRIER COMMAND - AMIGA GUIDE

Before you load Carrier Command, you are advised to read the Mission Briefing. Once you have loaded the game, you should read through the Carrier Operations Guide, trying out the various sections of the Carrier, and familiarising yourself with its operational procedures, but first you should make a backup of the game and keep the original disk in a safe place.

MAKING A BACKUP COPY

Commodore Amiga Carrier Command is unprotected - to make a backup, hold down either mouse button when inserting the game disk at the Workbench prompt, then follow the on-screen instructions.

LOADING INSTRUCTIONS

If you are using an Amiga 1000, insert a Kickstart disk at the prompt.

Insert the Carrier Command game disk at the Workbench prompt. After about five seconds the title picture will appear, and the game will load after approximately thirty seconds.

CONTROL DEVICES

Peripherals

Carrier Command supports both mouse and joystick control. The whole game can be played with the mouse, but if the joystick is preferred, the Space Bar is used to emulate the right mouse button. The joystick should be plugged into port 1, and the mouse into port 0. Both mouse and joystick are active simultaneously.

Clicking

The concept of 'clicking' is important to comprehend when playing Carrier Command. When you are requested to click on an icon, press either the left mouse button, or the fire button if you are using a joystick.

Control Modes

The second concept to familiarise yourself with is that of the two control modes:

In "Pointer Mode", you move a pointer/cursor around the screen with the mouse or joystick. This mode is used to click on icons by pressing the fire button (either the left hand mouse button, or the joystick fire button).

By pressing the right hand mouse button or the Space Bar, you are put into "Direct Control Mode", and in this mode the mouse or joystick movements will actually control your Manta, Walrus, Carrier, etc.

Key Controls

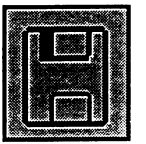
Although Carrier Command can be played entirely from the mouse, a number of keys are supported to increase the flexibility of the game's control system.

Generally, you can use the up and down arrow keys to accelerate and decelerate the Aircraft, Amphibious Assault Vehicles and the Carrier itself.

The arrow keys will also emulate the four arrow icons on the navigation screens and the Laser Turret targetting screen (one advantage of this is that two keys may be used together to provide diagonal movement), and the **HELP** and **DELETE** keys emulate the Zoom In and Zoom Out icons.

The numeric keys **1** to **4** can be used to select which aircraft or tank you wish to control, as an alternative to clicking on the numeric icons.

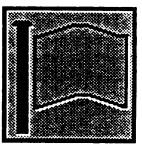
STARTING THE GAME



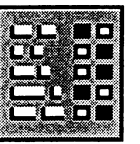
Once the game has loaded, you will be presented with the Front End screen.

Click on **Strategy Game** if you want to begin a new game of Carrier Command, **Action Game** if you wish to play a mini version of the game to improve your combat skills, or **Load Old Game** to load in a previously saved game position.

A number of file and game management options are available from within the game. Click on the **DISK** icon, and then click on the appropriate icon:

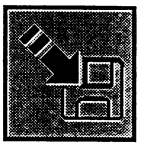


Surrender
This option allows you to abort the game - effectively surrendering to the enemy forces. You will be given a chance to cancel this order.



Game Options
This option allows you to change various user-definable features, by clicking on either the **YES** or **NO** boxes next to each option. These options are saved with your game position.

SAVING THE GAME POSITION



Save Game
This option allows you to save your current game position to disk, for later retrieval.

Carrier Command uses an entire disk to store its saved games, so allocate a blank disk purely for saved games, and do not attempt to use it for any other purpose.

Insert the Saved Games disk in Drive **DF0:** and then select the disk area in which you wish the game to be saved. There are four to choose from, and if you select an area which already has a saved game position stored, it will be overwritten by the new position.

If you do not wish to save a game, you may select the **CANCEL** option from this screen.

COLOUR CODING

Amiga Carrier Command uses the following colour coding for the three island alignments:-

Blue	Friendly island
Red	Enemy island
Green	Neutral island

COMPATABILITY

Carrier Command is compatible with all releases of the Commodore Amiga machine with at least 512K of RAM. You may be required to disable or disconnect additional hardware attached to your machine, in order for the game to run.

MUSIC

To listen to the Carrier Command soundtrack, leave the game at the Front End for about twenty seconds, or press CTRL-M.

CREDITS

Carrier Command was conceived by Clare Edgeley
Original design by Ricardo Pinto
Coding by Ian Oliver and Graeme Baird at Realtime Games Software Limited
Sound effects by David Whittaker
Soundtrack composed and performed by Dave Lowe
Title screen, icons and box artwork by Herman Serrano

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London WC1A 1PS

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Menlo Park
California 94026

A catalogue of Telecomsoft Products is available on request.

CARRIER COMMAND - IBM PC KEYGUIDE

Before you load Carrier Command, you are advised to read the Mission Briefing. Once you have loaded the game, you should read the Carrier Operations Guide, trying out the various sections of the Carrier and familiarising yourself with the operational procedures.

Required Equipment

Carrier Command requires an IBM PC, XT, AT, PS/2, Compaq 386, Tandy 1000, or a computer 100% compatible with these models. The machine must have at least 512k of RAM.

Control devices

Carrier Command can be run entirely from the keyboard, or with a joystick or a mouse. Mouse control is recommended. For a list of keys please refer to the **Keyboard control** section of this guide.
It is important to familiarise yourself with the two control modes that are used in the game:
In "Pointer Mode", you move a pointer/cursor around the screen with the keys,joystick or mouse. This mode is used to click on icons by pressing the fire button.
By pressing the defined control mode key, you are put into "Direct Control Mode", and in this mode the keys,joystick or mouse movements will actually control your Manta, Walrus, Carrier etc.
The concept of 'Clicking' is important to comprehend. When you are requested to click on an icon, press either the left hand mouse button, or the fire button if you are using a joystick or keyboard. The right hand mouse button (or second joystick button) acts as the direct control mode selector (the Enter key also performs the same function for mouse or joystick control with only one button as well as when using keyboard control).
If Joystick users experience the cursor 'drifting' on its own, pressing CTRL+fire will recalibrate the joystick accordingly.

Display

Carrier Command requires a colour monitor with an IBM CGA, EGA, VGA or Tandy 1000 graphics system. Carrier will run on a system with a monochrome monitor if your system has a Hercules Monochrome Graphics card. If you are using a compatible graphics card/monitor, it must be 100% hardware compatible to one of the above.

DOS

You must have IBM DOS, Microsoft MS DOS or Tandy DOS, version 2.1 or higher.

INSTALLATION

Carrier Command can be copied from the original disk onto either another floppy disk or a hard disk. The files are normal in all respects, and should not cause special problems when backing up or using a hard disk.

CARRIER COMMAND

Carrier comes on a single sided PC disk and can be backed up onto a pre-formatted blank disk or a blank system disk if required. (Use FORMAT A:/S from MS DOS to prepare your blank system disk first).
To install on a hard disk, simply create a new directory and copy all of the Carrier game files into that directory.
e.g If your hard disk is drive C, at the "C>" prompt type: "MD CARRIER" and then type "COPY A:*.* C:\CARRIER"
Once the files have copied, at the "C>" prompt type "CD CARRIER" then type "CARRIER" or "CARRIER ?" to run the program.

LOADING FROM FLOPPY DISK

Boot up your machine using a DOS disk (version 2.1 or higher is required). When the "A>" prompt appears, remove the DOS disk and insert the Carrier Command disk into drive A. To load the program, type "CARRIER" to load up with the auto-configured options or type "CARRIER ?" to display a help screen which shows you how to define the options yourself from the command line before you enter the program.

SPECIAL OPTIONS

SPEED: Carrier Command will automatically set the speed of the game according to the machine specifications. The factors affecting the speed (graphics complexity, sea dots etc.) can be changed from the Game Options screen within the program.
WARP MODE: Carrier Command includes a warp mode option, which effectively speeds up time. This option is best used to speed up time whilst a vehicle (e.g Carrier) is on its way to a new destination. It could also be used to speed up the production of items to be shipped to the designated stockpile island. However, the time lapse will also have the same effect on the enemy forces.
Warp mode can only be accessed from the carrier map screen.

EXTRA VIEWS: You can have a cockpit view from all of the active vehicles (manta/walrus) **at once** by selecting the vehicle information screen. You will be presented with a screen split into four sections. Each section gives information on each manta/walrus. If you press fire with the cursor within one of those four areas then the present cockpit view will be displayed for all four vehicles. Select fire again to return to the information screen.
Radars: If you don't like having the radar screens where they are positioned from the cockpit of a manta/walrus, then by placing the pointer over the radar and holding down fire, you can drag the radar and position it wherever you like within the screen. You can also zoom in on the radar whilst dragging it by pressing the direct control mode key/button.

CONTROLS

KEYBOARD CONTROLS

Q	Up
A	Down
O	Left
P	Right
SPACE	Fire
Enter	Control mode/Restart from CTRL+S pause
CTRL+S	Pause (also allows activation of TSR's by selecting the relevant hot keys)

STARTING THE GAME

Once Carrier Command has loaded, you will be presented with the Front End screen.
Click on **Strategy Game** if you want to begin a new game of Carrier Command, **Action Game** if you wish to play a balanced mid-game version to improve your combat skills, or **Load Old Game** to load in a previously saved game position. Click on **Options** to alter the video mode, input device etc. Selecting **Quit** will return you to DOS.

A number of file and game management options are available from within the game. Click on the **Disk** icon, and then select the appropriate icon:

Surrender

This option allows you to abort the game - effectively surrendering to the enemy forces. You will be given a chance to cancel this order.

Game options

This option allows you to change various user-definable features. Clicking in the box next to each option will change the current selection.
Players should note that changing the **Cursor Scaling** will adjust the sensitivity of mouse, joystick and keyboard control.

SAVING THE GAME POSITION

Save Game

This option allows you to save your current game position to disk, for later retrieval.
To save to floppy disk, you must prepare a blank formatted disk before you load Carrier Command.
To save, click on the **Path** if you are saving to a drive different to the one the game was loaded on, and change the Drive letter accordingly. Click on the **Name** to change the name of the file you wish to save. You will automatically be given a **Directory** of any Carrier Command save game files that already exist in the chosen Path. Finally click on **Save** to save your game position, or **Exit** to leave.
You can save your game position to **hard disk** by changing the Path to match the Drive letter of your hard disk (e.g. Drive C).

COLOUR CODING

IBM PC Carrier Command uses the following colour coding for the three island alignments:-

EGA/VGA version	BLUE	Friendly Island
	RED	Enemy Island
	GREEN	Neutral Island
CGA version	CYAN	Friendly Island
	MAGENTA	Enemy Island
	WHITE	Neutral Island
Hercules	To determine the Island type, select the Island information option.	

Carrier Command CBM64.

Mission Briefing.

Commander, thank you for making yourself available at such short notice.
The following information is of a highly confidential and sensitive nature and must not fall into the hands of politicians or journalists.
Your mission is to take control of the carrier Omega and to use it's combined force of ground and air assault vehicles to engage the carrier Epsilon and win control of a large chain of 62 islands.

Loading Instructions

Plug a joystick into port two.
Cassette. Press Shift and Run/stop together
Disk. Type LOAD"*",8,1.

Operations Guide.

After loading the title screen will appear, move the joystick pointer over one of the following icons and press the fire button. *(Clicking the Icon.)*
Strategy, Clicking on this icon with the joystick pointer will start a long term strategy game.
Action, Click on this icon will start a quick action game.
Load, Clicking on this icon allow you to restore a saved game. Click on the icons 1 to 4 to load a saved game or click to Quit to return to the title screen.
Game Status Screen.
The Game Status Screen will appear after you have selected a Strategy or Action game, this screen shows your score, time taken and the total number of friendly and enemy islands. The lower part of this screen is taken up by ten icons, the first five of which are the main control icons for the carriers helm, surface to surface missiles, Walrus Helm, Manta Helm and the game status screen. The next five icons will change according to which of the first five have been selected.

The next five icons will change according to which of the first five have been selected.

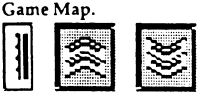
1. Main Carrier screen.

Clicking on this icon will give you access to the main carrier screen. Through this screen you are able to select and control surface to surface missles, the carriers Planes & Tanks, the status screen, the game map, the damage status screen, the Carriers Stores and the message screen.

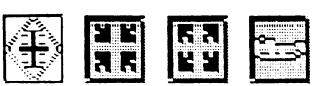
When the joystick icon is selected*(the joystick icon has turned White)* you will also have access to the main game map, the damage screen and the carriers stores by clicking on the icons to the right of the joystick icon.

The controls on the main carriers screen allow you to stop the carriers movement by clicking on the large hand icon at the bottom of the screen. Switch the carriers autopilot on/off by clicking on the small A. Set the carriers speed by clicking on the speed indicator or by clicking on the up/down arrows on the right hand edge of the screen.

Game Map.



The game map is used by both the Carrier and it's tanks/planes *(Walrus & Manta)* to show their positions and to program their destinations of each, they all use the same method to select their destinations which is as follows. Move the joystick pointer over the map and press the space bar, a small cross will appear on the map. This small cross marks the vehicles destination, the vehicle will start to move towards the cross when the vehicles autopilot is turn on. (The small A icon). The vehicles speed can be set by clicking on the speed indicator or by clicking on the up/down arrows to the right of the speed indicator.



The large square icon in the bottom left hand corner of the screen with the diamond in it, is used the scroll the map around. You can do this by clicking on the points of the diamond. The icons just to the right of this large square icon are used to zoom in and out of the map, zoom in being the upper zoom out the lower. You can also zoom

into the map by clicking on it with the joystick pointer. The question mark to the right of these icons is used to call up information about the island over which the map is currently centred over. Clicking on the icon above the question mark will centre on the carrier.

On the carriers map screen the icons to the right of the centre on carrier icon are centre of base island and program a new island to become the base island. To creat a new base island you must first all take over a hostile or free island, then centre on that island and click on the Prog icon.

When using the map to set the destination of a Walrus the icon to the right of the centre on carrier icon is replaced by a centre on Walrus icon.

When using the map to set the destination of a Manta the icon to the right of the centre on carrier icon is replaced by a centre on Manta icon.

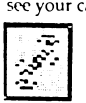
When using the map with either a Walrus or a Manta the numbers 1 to 4 will also be displayed at the bottom of the screen, use these numbered icons to switch control between the four Walrus and Mantas.

Damage Status Screen.

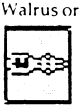
Along the bottom is this screen are ten icons, clicking on any of the first nine will give you a damage report on the part of the carrier which the icon you have clicked on represents. From left to right they are as follows, Engines, Radar, Communication, Recon Drones, Generators, Surface to Surface Missles, Lift, Repair Systems and Carrier Superstrructure.

Engines, When damaged the carriers maximum speed will drop, should the carriers engines be destroyed the carrier will become a sitting duck.

Radar, If the radar is badly damaged or destoryed you will not be able to see your carrier or it's assault vehicles on any of the map screens.



Communications, When damaged the range a vehicle can travel from the carrier will decrease. When destroyed you will not to able to launch and control Walrus or Mantas.



Recon Drones, When destroyed or damaged you will not be able to launch a recon drone.

Generators, The generators generate power of the whole carrier. If they are damaged some of the carriers other systems will either slow down or shut down due to a lack of power.

Surface to Surface Missiles, If damaged you may have problems launching missiles. If destroyed you will not be able to launch any missiles from the carrier.

Lift, If the lift is too badly damaged it will become impossible for you to move Mantas to and from the fight deck,

Repair Systems, When damaged the rate at which all the carriers systems are repaired will decrease, if destroyed no repairs to any system can be carried out.

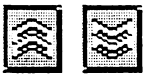
Superstructure : If the carriers superstructure is to badly damaged your carrier will be destroved and the game will be over.

The only other icon on this row is the damage priorities icon. Clicking on this icon will bring up the priorities screen, by clicking on Lo, Med or Hi you are able to change the repair priorities of a given system. Setting a prioritie to high will mean that, that system will be repaired first. **Do not over load the repair systems by setting all the priorities to High.**

Carriers Stores.

Clicking on the Carriers Stores icon will bring up a list of either the equipment on board the carrier or the stores being held on the stockpile island. You can switch between these two lists by clicking on either the carrier or stock pile icon. By clicking on the priorities icon you are able to set the rates at which new equipment is made. At the start of the game it is best to only give those pieces of equipment you most need a high priority. You set the priorities by clicking on Low, Med or High. To

order equipment place the joystick pointer over the number to the left of the item you want and hold down the joystick button, then move the joystick up or down to change the number.



You may scroll any of the previous lists up or down by clicking on either of the up/down arrow icons in the bottom right hand corner of the screen.

Clicking on the icon in the bottom left hand corner of the screen will transfer equipment from the stockpile island to the carrier.

2. Surface to surface missle screen.

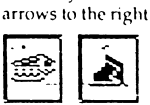
Clicking on the launch icon will launch a recon drone which will then start to move towards the heart of an adjacent island, if you then press the fire button on the joystick a missile will be launched from the carrier towards the drones location. Drones have a limited fuel supply and will self destruct when their fuel is used up.

3. Walrus Helm.

Once the Walrus Helm screen has been selected, you are able to take direct control of a Walrus that has been launched from the carrier by clicking on it's number icon (1-4) and pressing the space bar. You can not take direct control of a Walrus if the autopilot (small A) for that Walrus is turned on.

The three icons below the numbers icons 1 to 3 allow you to switch between the Walrus three types of weapons, these being laser, missles and accb pod. *See Walrus fitting.*

The speed of the walrus can be controlled by either clicking on the speed indicator or by clicking on the up/down arrows to the right of the speed indicator.



The two new icons above the speed indicator are used to control walrus fitting and launching.

Walrus Launching.

To launch a walrus click on the second of the two icons (left to right) and then select the number of the Walrus you wish to launch by clicking on the icons numbered 1 to 4. After that has been done you need only click on the launch icon, the one below the 3 and 4 icons.

To dock a Walrus with the carrier just click on the dock icon, which can be found just below the icons marked 1 and 2.

Walrus Fitting and Weapons.

On the fitting screen the numbered icons 1 to 4 are used to choose which Walrus is being fitted with weapons or other equipment. The large icon below the numbered icons 1 and 2 can be used to bring a new Walrus out of the carrier stores if one of your original Walrus is destroyed. The spanner icon is used to start repairs on any damaged Walrus, once it has returned to the carrier.

The fuel level of a Walrus may be changed by clicking on the fuel indicator with the joystick pointer or by clicking on the up/down arrows to the right to the fuel indicator.

The + & - icons are used to scroll through the weapons and equipment the Walrus can use, they are as follows:

Harbinger Missiles, used to attack ground targets. They are the only weapon which can destroy an enemy control centre.

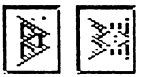
ACCB pods, these come in three types Defence (for protecting your island network from the other carrier), Resource (where raw materials are mined and refined and Factory (where raw materials are used to build equipment).

By dropping a pod on a free island you will take control of that island. To take control of a enemy island you must first destroy it's control centre with a Harbinger Missile and then drop a new ACCB pod.

Avatar Laser, used to attack ground targets.

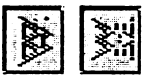
To place equipment on a Walrus, move the joystick pointer over the picture of the piece of equipment you wish to use. Now press and hold down the fire button (the joystick pointer will change into the equipment), to place your chosen equipment on the Walrus move the joystick pointer over an empty slot on the Walrus and let go of the joysticks fire button.

4.Manta Helm.



This screen looks and works much like the Walrus helm screen. The only changes being that the fitting and launch icons have changed to look like mantas.

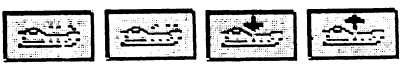
Manta fitting.



This screen looks and works much like the Walrus fitting screen. The main changes being that the fitting and launch icons have changed to look like mantas and the Manta equipment which is as follows.
Assasin Missiles, used against ground targets and in air-to-air combat.
Quasar Laser, used against ground targets and in air-to-air combat.

Manta Launching.

The method of launching a Manta is much the same as launching a Walrus, however when you select the launch icon four new large icons will appear on screen.



The first of these (bottom middle of the screen) is the launch from deck icon clicking the next icon (to the right) will recall a Manta and land it back on the carrier. The next icon along is used to lower a manta which is sitting on the deck of the carrier into the carriers hold, while the last icon is used to raise a Manta from the carriers hold and park it on the carriers deck.

5. Disk Controls & Pause.
Clicking on this icon will bring up the disk control and game status screen.

The clock icon when selected will pause the game.

Clicking on the disk icon with the arrow will allow you to save your game.

By clicking on the flag icon you can surrender the game you are playing and start again.

You may format or directory a disk by clicking on the disk icon, (the one with out the arrow).

10. Message Screen.

By clicking on this icon the message window will appear. The message window will show the lastest battle messages, if any have come in.

Carrier Command - Amstrad CPC

Before you load Carrier Command, you are advised to read the Mission Briefing. Once you have loaded the game, you should read the Carrier Operations Guide, trying out the various sections of the Carrier, and familiarising yourself with the operational procedures.

Loading Instructions

CPC DISK

Insert the disc and type ICPM then press Enter. The game will now load automatically.

CPC CASSETTE

-Insert the cassette in the recorder
-Press simultaneously the CTRL and ENTER keys.
-Press the PLAY key on the recorder.
-The game will load automatically.

Control Devices

Carrier Command supports keyboard, joystick and (Kempston) mouse control. These can be chosen from the Options menu, which can be selected from the Front End screen.

Control modes

It is important to familiarise yourself with the two control modes that are used in the game:
In "Pointer Mode", you move a pointer/cursor around the screen with the keys, joystick or mouse. This mode is used to click on icons by pressing the fire button.
By pressing the defined control mode key, you are

put into "Direct Control Mode", and in this mode the keys, joystick or mouse movements will actually control your Manta, Walrus, Carrier etc.

Starting The Game

Once the game has loaded, you will be presented with the Front End screen.
Click on **Strategy Game** if you want to begin a new game of Carrier Command, or **Action Game** if you wish to play a balanced mid-game version to improve your combat skills. Selecting **Options** will allow you to select your game controls.

Saving The Game Position

Save Game

This option allows you to save your current game position to disk for later retrieval.
To access this option from within the game, select the disc icon. There are a number of file and game management options available here:
You will need a blank system disk (i.e system format) disc ready for saving your game position onto. Before saving for the first time, you will need to clear your disc and identify it as your Carrier Command save games disc. To do this, select the **Zap Disc** icon. Once the disc has been identified, you can then save onto it. You will **not** need to select **Zap Disc** again to save onto the disc in future.

Surrendering

Selecting the surrender 'flag' icon allows you to abort the game - effectively surrendering to the enemy forces. To surrender, press 's' on the key-

board or select any other available game icon to continue.

Colour Coding

Amstrad Carrier Command uses the following colour coding for the three island alignments:

At the lowest map resolution:

Blue	Free Island
Yellow	Enemy Island
White	Neutral Island

At the highest map resolution:

Blue	Free Island
Yellow	Enemy Island
Green	Neutral Island

Time Lapse

Amstrad Carrier Command includes a Time Lapse option, which effectively speeds up time whilst the icon is selected and the fire button is pressed. This option is best used to speed up time whilst a vehicle (e.g Carrier) is on its way to a new destination. It can also be used to speed up the production of items to be shipped to the designated stockpile island. However, the time lapse will also have the same effect on the enemy forces.

NB: The time lapse option does not effect the length of the time out on the messages screen, (please see the Carrier Command Operations Manual for further information on the message screen).

CARRIER COMMAND - SPECTRUM 128/+3 GUIDE

Before you load Carrier Command, you are advised to read the Mission Briefing. Once you have loaded the game, you should read the Carrier Operations Guide, trying out the various sections of the Carrier and familiarising yourself with the operational procedures.

LOADING INSTRUCTIONS

Spectrum 128k cassette users should insert the tape into the tape player and select LOADER then press Enter from the main menu. The game will now load automatically.

CONTROL DEVICES

Carrier Command supports keyboard, joystick and (Kempston) mouse control. These can be chosen from the Options menu, which can be selected from the Front End screen.

Control modes
It is important to familiarise yourself with the two control modes that are used in the game:
In "Pointer Mode", you move a pointer/cursor around the screen with the keys, joystick or mouse. This mode is used to click on icons by pressing the fire button.
By pressing the defined control mode key, you are put into "Direct Control Mode", and in this mode the keys, joystick or mouse movements will actually control your Manta, Walrus, Carrier etc.

STARTING THE GAME

Once the game has loaded, you will be presented with the Front End screen.
Click on **Strategy Game** if you want to begin a new game of Carrier Command, or **Action Game** if you wish to play a balanced mid game version to improve your combat skills. Selecting **Options** will allow you to select your game controls.

SAVING THE GAME POSITION

Save Game
This option allows you to save your current game position to disk or tape, for later retrieval.
To access this option from within the game, select the disc/ tape icon. There are a number of file and game management options available here:

Spectrum +3 disc users.
You will need a blank (i.e formatted) disc ready for saving your game position onto. Before saving for the first time, you will need to clear your disc and identify it as your Carrier Command save games disc. To do this, select the **Zap Disc** icon. Once the disc has been identified, you can then save onto it. You will **not** need to select **Zap Disc** again to save onto the disc in future.

Spectrum 128k tape users.
Tape users require a blank cassette to save game positions onto.
If you do not wish to save a game position, you can continue by selecting any of the game icons available to re-enter the game.

Surrendering

Selecting the surrender 'flag' icon allows you to abort the game - effectively surrendering to the enemy forces. To surrender, press 's' on the keyboard or select any other available game icon to continue.

COLOUR CODING

Spectrum Carrier Command uses the following colour coding for the three island alignments:-

Blue	Friendly Island
Red	Enemy Island
Green	Neutral Island

TIME LAPSE

Spectrum Carrier Command includes a Time Lapse option, which effectively speeds up time whilst the icon is selected and the fire button is pressed. This option is best used to speed up time whilst a vehicle (e.g Carrier) is on its way to a new destination. It can also be used to speed up the production of items to be shipped to the designated stock-pile island. However, the time lapse will also have the same effect on the enemy forces.

NB: The time lapse option does not effect the length of the time out on the messages screen, (please see the Carrier Command Operations Manual for further information on the message screen).

P-47

P-47 : THE PLANE

The Republic P-47 Thunderbolt was one of the top American fighters in World War II. In 1943 they were under the control of the British RAF Fighter Command and, operating from bases in England, their principal tasks were relatively short-range sorties over northern France. The following year they were equipped with "drop tanks", giving the extra fuel needed to compliment their immense fire-power, and enabled deep daylight raids further behind enemy lines. The P-47 was at the time the fastest and heaviest bomber in the USAAF, and in combat consistently proved its immense strength. With exceptionally good dive characteristics and hard hitting armaments, the "Lead Sled" was the 8th Air Force's premier deadly weapon.

PICK-UPS

B **Bombs :** *These drop from the 'plane each time you fire.*

E **Spray missile :** *These fly from the front of your 'plane as missiles and then split into small projectiles (2-8 depending upon your energy level) flying out in fan formation.*

T **Directable Fire** *2-8 bullets are fired in the direction you are currently holding the joystick. The 'plane will also move in the same direction-a deadly but tricky manœuvre.*

1 **Up Extra Late :** *Gives you an extra life.*

LOADING INSTRUCTIONS

Amiga	It your Amiga has Kickstart on disk, insert the Kickstart disk and switch on your Amiga. Then, when prompted for Workbench, insert the game disk.
Atari ST	Insert disk and then switch on the ST. The game will auto-boot.
IBM PC	When the A> prompt appears insert the disk in the drive and type P47.
CBM 64 Disk	Insert disk and then type Load "*",8,1.
CBM 64 Tape	Press SHIFT & RUN/STOP then press Play on tape player.

AMSTRAD DISK : Insert the disk in the drive and type RUN"P47

AMSTRAD CASSETTE : Insert the cassette in the player. Press simultaneously on the keys CTRL and ENTER and then press the PLAY key.

SPECTRUM CASSETTE : Insert the cassette in the player and switch on your computer. Confirm the LOADER option by pressing on the RETURN key. A message will appear asking you to press the PLAY key on the cassette player and then to press a key on the keyboard. After following these instructions, the game will load automatically.

P-47 : THE GAME

Fly your P-47 through eight frenzied levels of enemy activity, bombing ground vehicles and shooting aircraft. At the end of each level you must confront and destroy a large enemy battleship, tank or plane to progress to the next level.

Along the way there are several pick-ups. Each time you collect one of these, your energy level increases, starting at level one and increasing to a maximum level of Four. Your energy level determines the number

of special weapons that each pick-up releases. For example, when you have collected the pick-up for bombs, you will fire one bomb for each level of energy.

END GAME

On completion of all eight levels, the Spectrum, C 64 and Amstrad versions of the game will wrap around to start again. On the ST, Amiga and IBM versions you will receive a congratulatory message and be given the option of running the mission again with a greater degree of difficulty. There are four degrees of difficulty.

CONTROLS

All versions will have redefinable keyboard controls, as well as a joystick option. The joystick option on the IBM PC will be compatible only with the IBM Game controller card or the built-in joystick port on an Amstrad PC. To quit to DOS on the IBM PC press F10.

KEYBOARDS

AZERTY / QWERTY

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	ST	AG	PC3	PC5	CPCD	CPCC
SILENT SERVICE	22033	32031	12021	17018	62023	63039
CARRIER COMMAND	22034	32033	12039	17034	62031	63026
P47	22035	32034	12040	17036	62030	63016
GUNSHIP	22019	32008	12033	17028	62020	63040

	C64D	C64C	SPECC
SILENT SERVICE	42018	43017	
CARRIER COMMAND	42021		
P47	42010	43005	53002
GUNSHIP	42022		53019

ALBA GRAPHIC 93100 MONTREUIL