

## CD-ROM INSTALLATION

To run Silent Service II from the CD-ROM, log onto your CD-ROM drive and type `GO R`. This will run through the setup routine for Silent Service II. From then on log onto your CD-ROM drive and type `GO R`. Silent Service II CD will use some space on your hard disc for save files.

### *To create a boot disc for Silent Service II CD-ROM*

If you are unable to run Silent Service II CD-ROM due to 'insufficient memory', you will need to create a Boot Disc. Insert a blank disc to be formatted into drive A & type 'Format A:/S' `R` at the C: prompt. This will create a system disc. Having made a system disc create a CONFIG.SYS file & an AUTOEXEC.BAT file referring to the suggestions below, using the MS DOS edit command.

#### CONFIG.SYS

```
DEVICE=C:\DOS\HIMEM.SYS
DEVICE=C:\DOS\EMM386.EXE NOEMS
DOS=HIGH,UMB
FILES=15
BUFFERS=20
DEVICEHIGH=C:\CDROM\CDROM.SYS /D:CDROM01 /P:340 ①
DEVICEHIGH=C:\DOS\DBLSPACE.SYS /MOVE ②
```

#### AUTOEXEC.BAT

```
LH C:\DOS\MOUSE.COM ③
LH C:\DOS\MSCDEX /D:CDROM01 ④
D: ⑤
GO
```

- Note:** ① Replace this line with your specific CD-ROM Driver line (check CONFIG.SYS)
- ② You will only need this line if you a) use DOS 6 with Dblspace & b) want to save your log into this drive.
  - ③ Change this line according to where your mouse driver is.
  - ④ Modify this line according to your present autoexec.bat on your Hard Disc or system Disc.
  - ⑤ This should be your CD log drive.

## PC INSTALLATION

Silent Service II cannot be played from the disc enclosed. You must use the install program to create a usable copy either on your hard disk or on a floppy game disk. Insert the program disk into your A drive and at the A prompt (A>) type INSTALL. Follow the on screen options. If you wish to make a working floppy disc version, you will need a formatted 3.5" HD disc. Press `R` when prompted for disc B.

### *To run Silent Service II*

**Hard disk:** Type `cd MPS` and press `R`  
Type SILENT and press `R`

**Floppy disk:** Insert your game disk into drive A, type SILENT and press `R`.

NB. EGA graphics cards must have 256k of RAM. If your computer has only 512k, you cannot use VGA.

## AMIGA INSTALLATION

### *Making a Working Copy of the Game Disks*

1. Copy the game disks using the Shell/CLI command  
Diskcopy from DFO: (or DFI: if you have external drive).
2. Put the originals away in a safe place.
3. Take the copy disks. Disk A will be called 'OriginalA' this must be renamed 'SILENTA' (capital letters very important). This is done using the 'Rename' option in the workbench (located in one of the top pull-down menus). Follow the same procedure for disk B.
4. Go into the Amiga SHELL (or CLI). Place disk A in the internal drive and type 'CD DFO:'.  
5. Type 'ED S/Startup-Sequence' and press `e`. The screen will then be blank except for the word 'floppy' in the top-left corner. You must delete this and replace it with the following:  

game  
loadWB
6. Press the `q` key and at the prompt type `x` and then press `e`, the disk will be updated. Now reboot the machine with disk A in the drive and the game will start.

## Running from Amiga Hard Drive

1. Make a working copy of the game disks.
2. Create SSII directory on your hard drive e.g. from Workbench menu (new drawer).
3. Insert disk 1 into the internal drive.
4. From Shell type: `cd df0:`
5. Then type:

**Copy from df0:** To work:SSII (if using another partition replace Work: with relevant path)

6. Insert disk 2 and repeat process 5.
7. Insert disk 1 and type the following:

**Copy from df0:fonts to SYS:fonts All** (replace SYS: with another partition if your Workbench is located elsewhere).

8. Type `cd SYS:` (or relevant Workbench path) then the following:

**ED S/Startup-Sequence**

9. Add the following lines above the statement 'LoadWB'

**Assign SilentA: Work:SSII**

**Assign SilentB: Work:SSII**

(remember to replace Work: with the relevant partition if your game is installed elsewhere).

10. Re-boot the computer and double-click on the 'game' icon to run.

## PROTECTION

After the title screens, you're shown a Japanese ship. Compare the picture with those found at the end of this manual and select the name using the cursor keys.

## TUTORIALS

### (a) *Combat tutorial*

This is on a practice range, using old hulks as targets. There are no enemies or time limits. After the title screens and ship identification, select the following:

- Training
- Introductory
- Gato submarine class
- Flawless torpedoes.

Press any key to continue.

At the start of the exercise, you are the dot in the middle of a box. The four dots north of you are the targets. Below the chart is the "info" panel, showing speed 0, depth 000, heading 000 and view bearing 000. Six torpedoes are loaded in the bow tubes, and 4 in the stern tubes. On the right are 10 torpedo timers showing time to go for torpedo to reach its target (TDC light ON) or time to go before torpedo runs out of gas (TDC light OFF).

**Heading vs. Bearing:** Heading is the direction your boat is pointing. Bearing is the direction of your view. The lookout, your periscope, TBT (Target Bearing Transmitter) binoculars, torpedoes and deck gun are all pointed along the bearing, not the boat's heading. Key "Set View to Course" sets your view straight ahead. Key "Set Course to View" steers the sub onto the direction that you are viewing.

**Find your targets:** Select **Bridge TBT 4**. This is a pair of binoculars in a special mounting. Turn your view **left**, and **right** over the target hulks. The scale brightens when it is over a "marked" ship. Target information is shown on the info panel. Use **Zoom Z** for a better view. Move the centre of the scale to the leftmost ship. Tap **TDC On/Off /** to lock the Torpedo Data Computer onto the target. With TDC on, your view remains locked to the target. Tap **Ahead Full 3**. Tap **Set Course to View N** to swing your sub around towards the target ship. When target range reduces to 1000 yards, tap **All Stop 5**. Tap **Fire Deck Gun Z** once. Adjust the gun elevation if necessary until you're scoring hits. The target will eventually sink. Tap **Periscope Depth 8** to dive to 55 feet. Tap **Periscope Up/Down 9** once to raise the scope, then tap **Periscope 3** to view. Turn the scope to mark a new target and turn on the TDC to track it. Tap **Fire Torpedo R**. Repeat until the hulk is sunk. Note, when the TDC is on, your view is locked to the target, and the View Left and View Right keys adjust torpedo aim, not the view. Turn off the TDC to change your view.

Swing your periscope onto the third target and turn on the TDC. Tap **Ahead Full 3**. Note slower speed when submerged. Tap **Charts 1** to watch your sub's progress. Use **Turn Starbd** (cursor right) or **Turn**

**Port** (cursor left) until your sub is heading away from the target. Tap **Straight & Level B**, then **All Stop 5**. Tap **Fire Torpedo** for a launch from the stern tubes. Selection of bow or stern tubes is automatic. Tap **Gauges 5** to view number of tubes loaded. Numbers below show additional torpedoes available but not yet loaded. Sinking the last hulk ends the battle.

### ***(b) War Patrol Tutorial***

After the title screens and ship identification, select the following:

- Single War Patrol
- Introductory difficulty level
- Type your name
- Enter date January 1, 1944
- Imp. Gato submarine class
- Use the cursor keys to select "Midway-SubPac" as your starting base
- Use the cursor keys to select "East China Sea" patrol area.
- Press any key until the war patrol begins.

The patrol starts with a view of the entire Western Pacific Ocean. Your boat is a bright dot in a bright box. Your patrol zone is a dark box off the coast of China. Use the cursor keys or joystick to move your boat toward the patrol area. Press *e* as messages appear. Land and reef areas are impassable. Try each of the following keys: "Gauges" (boat's status) and "Ports" (toggles friendly and enemy bases on/off - available only on patrol). As you move, the info panel (upper left) shows date, time, and days remaining. Make a note of how many days it takes to reach the patrol area (15 days in this example). Return to base when the number of days left equals 1 1/2 times this number (22 or 23 days). Time passes regardless of whether you are moving. Use the Pause key to freeze the patrol. Eventually your boat will encounter the enemy, either visually or by radar. A radar contact means you have more time to manoeuvre. In daylight you normally attack submerged. Avoid using the deck gun at night if return gunfire is a threat. If destroyers pursue you, your best bet is to crash dive to below the temperature layer (to colder water) then move away slowly.

## **COMMANDING A SUBMARINE: INITIAL OPTIONS**

### ***Game type***

**Training:** see Tutorial.

**Single Battle:** one of 8 engagements or a ninth random engagement  
**Single War Patrol:** search for enemies, engage and return.

**War Career:** a series of war patrols.

**Difficulty level:** from Introductory to Ultimate. Starting date affects submarine choice, radar availability and how long the war will last.

New players are advised to select a date in early 1944, when all American subs had radar and all torpedo defects had been fixed.

### ***Submarine class***

**Old 'S' Class:** Worst possible boat, 35 day range, test depth 200 feet.

**Barracuda Class:** 50 day range, test depth 255 feet

**Narwhal Class:** slow and not very manoeuvrable. 60 day range, test depth 250 feet

**'P' Class:** good speed and endurance, 60 day range, test depth 250 feet

**New 'S' Class:** Faster than the 'P' and slightly stronger, 60 day range, test depth 300 feet

**'T' Class:** similar to the 'Gato but slower, 60 day range, test depth 325 feet.

**Gato Class:** The "standard" US sub, 60 day range, test depth 350 feet.

**Improved Gato Class:** deeper diving depth and better gun, 60 day range, test depth 400 feet.

**Tench Class:** very similar to Improved Gato but harder to sink, 60 day range, test depth 400 feet.

### ***Torpedo Type***

**Flawless:** no faults - choose these if you don't like frustration.

**Historical:** realistic faults, some are duds. Mk14s can be unreliable.

## **TOURING THE BOAT**

### ***The Info Panel***

This appears over the bottom of your charts, bridge and periscope views.

**Depth:** current depth in feet. A depth of 000 means you're on the surface. Radar Depth is 025 or less. Periscope Depth is 055 or less.

**Speed:** current speed in knots.

**HDG (Heading):** current course

**Bearing:** Direction in which you are looking.

**Loaded Bow:** number of loaded torpedoes in bow.

**Loaded Stern:** number of loaded torpedoes in stern.

**Target Course:** course of last target marked

**TDC Light:** light is ON when the Torpedo Data Computer is ON.

**Torpedoes Timer:** shows which torpedoes (if any) are running, and their predicted time to "hit" if TDC on or time until "out of fuel" if TDC off. B1 to B6 for Bow-launched torpedoes, S1 to S4 for Stern.

**Torpedo TDC light:** on if torpedo was fired using TDC, off if fired manually.

### The Chart 1

Your sub has charts for the complete Western Pacific Ocean at 4 scales: Pacific Ocean, Battle large, Battle medium, Battle small. On the largest scale, your position is shown as a dot. On the other charts you are shown as a small line with a wake showing speed and direction of travel. The chart also shows torpedoes and known enemy ship locations.

### Periscope View 3

Must be "up" before this can be used 9.

Your depth must be 55 feet or less.

Controls to move View Left or Right will work only if TDC is OFF. The aiming scale is used to "mark" targets and aim torpedoes. Whenever the scale brightens you have "marked" a target. You can only "mark" one target at a time. The Aiming Pointer is used to aim torpedoes when TDC is ON. You have 4 magnification levels, controlled by Zoom and Unzoom.

### Bridge Lookout 2

This view from the conning tower is only available if you are on the surface. The direction you're facing is the BEARING on the Info Panel.

### Gauges 5

Used to monitor the boat's current status, especially torpedoes.

#### (a) Critical Gauges:

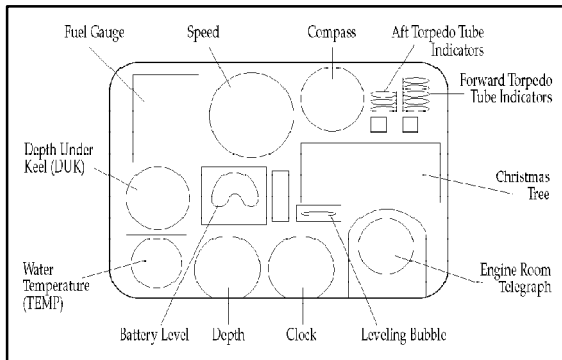
**Depth Under Keel (DUK):** depth to sea-bed - important in shallow water.

**Water Temperature (TEMP):** temperature of water outside hull.

Between 100 feet and 200 feet, the water temperature suddenly drops. This "layer" between warm surface water and cold deeper water deflects sonar and is useful when trying to evade enemy sonar detection.

**Battery level:** When submerged, you are powered by batteries which will last about 24 hours if you are stationary, 1 1/4 hours at flank (maximum) speed. Batteries can only be charged on the surface, by engines not in use. It takes approximately 2 hours when all 4 engines are used with the sub stationary. If you use 2 engines for moving the boat, recharging will take twice as long.

**Clock:** a 24 hour military clock e.g. 3pm is 1500.



### (b) Useful gauges

**Speed:** current speed in knots.

**Engine room telegraph:** shows number of engines in use.

**Depth:** current depth of your submarine

**Levelling bubble:** shows whether you are level, diving or climbing

**Compass:** shows direction in which you are travelling

**Forward torpedo tube indicators:** number of forward torpedoes loaded.

**Aft torpedo tube indicators:** number of aft torpedoes loaded.

**Fuel gauge:** the dark areas show fuel remaining

**Christmas tree:** hatch status - green is closed, red is open.

### Bridge TBT 4

Available only on the surface. This is a view from the conning tower through binoculars mounted on the Target Bearing Transmitter. The TBT is used to aim torpedoes and deck gun when you're on the surface. View can be rotated left or right if TDC is OFF. A Deck Gun Elevation of 0 means that the gun is elevated correctly for the target's range. Adjust elevation with Gun Down and Gun UP keys. The TDC must be on in order to use the deck gun.

### Damage report 6

Shows damage status of major systems. Some damage is temporary and may be repaired at sea. The percentage damage show how close you are to sinking. Any wrecked system may only be repaired at base. If batteries are flooded, you must surface immediately in order to vent deadly chlorine gas. (Blow All Tanks). Once surfaced, you may dive again. If Dive Planes are damaged, diving and climbing are slower. If the dive planes are wrecked, you cannot dive at all, and can rise only by blowing all tanks. You will be stuck on the surface until you reach base. Fire midships will reduce your crew's response to orders until repaired. Bulkheads determine your sub's structural strength. When bulkheads are repaired, they become "shored up" but are weaker. Your safe diving depth is reduced by half. If more than one bulkhead is shored up, head for base immediately. If you are sinking, there is a very slim chance of survival if you blow all tanks.

### Captain's Log 7

Contains information about your boat and other records.

### Status Icons



**Time rate:** from 1 (real life) to 8 (much faster)



**Sound Volume:** sound control



**Animations on/off:** whether the game shows special animations.



**Torpedo speed:** Mk 14 torpedoes only - high speed (short range) or low speed (long range). Speed of Mk 10 & Mk 18 torpedoes - always high.



**Radar running:** radar is above water and ON.



**Periscope:** Up or down.

## WAR PATROL CONTROLS

**Views available:** Charts (largest scale only), Gauges, Damage Report, Captain's log (use cursor keys to see pages), Ports P press to see all Japanese and American ports.

### Navigation controls

You must use the Chart View for navigation. Use the cursor keys or joystick to move the sub. When you encounter an enemy, the patrol temporarily halts. If you are sighted first, you are forced into battle. If you sight the enemy first, you are given the choice to engage or avoid.

## BATTLE CONTROLS

### Chart Controls

**Re-centre chart:** Centres chart at boat position. If TDC is ON, view is centred at half way between boat and target.

## Con Controls

The "Con" controls steer your submarine.

**Dive:** send your sub downward.

**Crash dive:** Dive quickly.

**Rise:** send your sub upward.

**Blow all tanks:** rise to surface quickly. Can be used only once in battle.

**Straight & Level:** level off

**Periscope depth:** adjust depth to 55 feet and level out.

## Engine Controls

Diesel power is used on the surface, powered by oil. Electrical power is used when submerged, powered by batteries.

**Ahead Flank (4 engines):** maximum forward speed. This will drain the batteries quickly if submerged. On surface, all engines drive the submarine and the batteries cannot be recharged.

**Ahead Full (3 engines):** On surface, 3 engines drive the sub, 1 engine charges the batteries.

**Ahead Half (2 engines):** On surface, 2 engines drive the sub, 2 engines charge the batteries.

**Ahead Slow (1 engine):** On surface, 1 engine drives the sub, 3 engines charge the batteries.

**All Stop (0 engines):** On surface, all engines are used to charge the batteries.

**Reverse (-4 engines):** slow reverse speed using all engines.

## Firing Torpedoes

**"Marked" target firing procedure:** Line up your target in your periscope or TBT (scale brightens), turn on the TDC and fire. The TDC calculates the target intercept course and directs the torpedo accordingly. Switch to the Charts view for a countdown to impact. A number of torpedoes may be "spread" by moving the aiming pointer with the view controls when the TDC is ON. Switch off the TDC before using the View controls to turn and mark your next target. If you fire a torpedo with the TDC off, it will fire straight ahead. Minimum range is 300 yards. Ideal range is 600 to 1200 yards. You are unlikely to hit a moving target over 2000 yds away. Maximum range is 3500 to 9000 yards, depending upon the torpedo model.

**Change Torpedo Speed:** Mk 14 only - doubles the range to 9000 yards.

## Deck Gun Controls

Your deck gun can only be used when you are on the surface. Use the TBT view, "mark" your target, switch on the TDC, adjust gun elevation if necessary (down if target is coming towards you, up if it is going away), and fire. Maximum range is 4000 yards. Unmarked targets cannot be hit because the TDC is used by your crew to aim the gun. Beware of enemy cruisers and battleships. Their guns are extremely powerful.

## Launching Debris

Available only once per battle. Used to deceive the enemy into thinking you're dead.

## End This Battle

Press this key to end a battle. It cannot be used to escape possible attacks. In this case, sail away from the enemy and try again.

## COMPUTER CONTROLS

**Animation on/off:** Toggles animations on/off. Helps to speed up the game on slower computers.

**"Boss" Hide Game:** temporarily hides game behind a blank screen. Press again to restore.

**Save game:** saves current game to disk.

**Restart game:** Returns to beginning of current game without saving.

**Joystick adjust:** Use this if the boat seems to wander left or right.

**Volume adjust:** Use to adjust number of sound effects: all sounds, most sounds, critical sounds, no sound.

**Quit Game to DOS:** Quits immediately without saving.

## AFTERMATH OF BATTLE

**After a single battle:** log book entries are shown. Press any key to continue.

**After a war patrol:** The patrol ends when you sail into a friendly base.

**After a war career:** A career ends only when Japan surrenders, or you are killed in action.



**Promotion:** You start as Lieutenant Commander. Promotion to Commander may occur after a particularly good patrol. Surviving an entire war career may earn promotion to Captain (at advanced difficulty) or Rear Admiral (at ultimate difficulty) at the war's end.

**Medals for valour:** These are awarded based upon your score for each war patrol. The most difficult to achieve is the Medal of Honour.

**Unit Citation:** Awarded for an outstanding overall record. More difficult to get than any medal.

**Asiatic-Pacific Campaign Medal (AP):** Awarded to those who survive a career that began on December 7th, 1941 (the start of the war).

## THE SINGLE BATTLES

### *Whales & Duds*

You're Randall "Dan" Daspit, commanding the Tinosa, a Gato-class submarine. It's 0930 July 24th 1943, west of Truk. You investigate a radar contact and discover a single, unescorted target - a huge whaling factory ship, now serving as an oil tanker, moving at 13 knots. You're in a fairly good position but beyond good shooting range. You have 3 options:

- (a) shoot immediately to slow down the target, approach submerged and finish him off.
- (b) pull back to radar contact range (over 10,000 yds.), surface, sail ahead of him, turn, submerge and attack.
- (c) Surface immediately and shoot it out.

### *Mush on the loose*

You're Dudley "Mush" Morton, commanding the Wahoo, a Gato-class submarine. It's 0845, January 26, 1943, northwest of Wewak, New Guinea. You investigate smoke on the horizon and find 3 Japanese merchant ships, without escort. You approach as closely as possible without being seen. You can submerge and move into a good attack position slightly ahead of the enemy, or you can turn east, run ahead before turning north, submerging, and moving into attack.

### *Flasher's Tankers (I)*

You're George Grider commanding the Flasher, an improved Gato-class submarine. It's 0900, December 4th, 1944. You're sweeping through the Philippines with a wolfpack. You make radar contact



with a 3 ship convoy that's headed straight towards you. Visibility is poor. Submerge and let them approach. You may not see them until 4000 to 5000 yards. Choose to attack the escort first and then the tanker, or vice versa.

### ***Flasher's Tankers (II)***

You're George Grider commanding the Flasher, an improved Gato-class submarine. It's 0100, December 22nd, 1944 off the Indochina coast. Your radar operator finds a target "hugging the coast" to discourage sub attacks by sailing in shallow water. You move in close for a night surface attack. The water is so shallow that you could hit bottom before reaching periscope depth.

You're in an excellent attack position. Let the convoy continue, keeping your bow toward them and slowly approach. The leading ships are probably escorts with a central column of tankers. If you get within 1000 yards, open fire with torpedoes. Once they spot you, run away from the nearest escort at maximum speed. If they are too close you may have to submerge, with care!

### ***Sink the Yamato***

You're Eugene McKinney, commanding the Skate, a gato-class submarine. It's 0430, December 25th, 1943 outside Truk Harbour. Radar contact shows the Yamato, the largest battleship in the world, moving towards you at 23 knots. Get right in front of the Yamato and submerge. At 1000 yards, fire everything from the bow, spin around and empty the stern tubes as well. You must then escape the escorting destroyer's counterattack. Then you can return and polish off the crippled Yamato.

### ***Death of the Shinano***

You're Joseph Enright commanding the Archerfish, an improved Gato-class submarine. It's 1715, November 28th, 1944, off Tokyo Bay. Your pick up the Shinano, with escorts, on radar leaving the bay. Get ahead of the group and attack. Remain on the surface to use your top speed as long as possible. Attempt as many hits as possible in the first attack, returning later to sink the target.

### ***Killer O'Kane***

You're Richard "Dick" O'Kane, commanding the Tang, an improved Gato-class submarine. It's 0030 in the shallow Formosa Strait, October 23rd 1944. Your radar picks up ten blips, probably a convoy of 5 merchantmen with 5 escorts. The convoy is heading away from you. Try to run around and lie in wait ahead.

### ***An Embarrassment of Riches***

You're Herman Kossler commanding the Cavalla, an improved Gato-class submarine. On June 19th, 1944, you "up scope" at 1048 to find Japanese carriers sailing right past your submarine! Position your boat so that the Shokaku will pass closely and let her have all you've got. If you come up to radar depth you should find even more targets. Is it possible to get them all?

### ***Random Engagement***

Select your date and submarine type. Your computer will generate an appropriate situation.

## **BATTLE TACTICS**

If you are within visual range, use the TBT or Periscope to "mark" targets. If you have radar and the target is distant, make sure you are at 25 feet or less. ASW (anti-submarine warfare) patrols and "stern chases" are best avoided. Position yourself ahead of your target, and lie in wait submerged. The Japanese often used zig-zag tactics, frequently changing course along their route. This will happen at the higher difficulty levels.

To survive an ambush, it is best to evade and escape by diving deep and moving away slowly. On the surface, your wake increases with speed and may reveal your position. Submerged, the faster you travel, the more noise you will make. The best tactic is to dive below the thermal layer (150 to 250 feet) where detection by sonar is difficult. Facing the enemy end on makes your sub much harder to see. This is true for radar and sonar and well as eyesight. Radar spots larger ship further away. Submarines will not register on radar at ranges over 4000 to 5000 yards

If you are submerged at more than radar or periscope depth, sonar is your only means of detecting the enemy. Maximum range is a few thousand yards. If you are moving quickly, your sonar has a blind spot astern (the baffles) caused by the disturbed water. Likewise, a submarine in the "baffles" of a ship is invisible to the sonar of that ship. However, ASW ships tend to operate in pairs and watch each other's baffles.

To evade depth charges, turn quickly as the ASW ship passes overhead. A radical change in depth may also help. Attempting to counterattack an ASW ship is rarely worthwhile. Coming to periscope depth is a very bad idea. To avoid being rammed, dive to 60 feet or more and lower your periscope.

## **PATROL STRATEGY**

In a war career, the base to which you return determines which theatre command controls your boat in the next patrol. This in turn affects which patrol zones are available. Japanese shipping preferred to use coastal waters and narrow passages. Warships often sailed further out to sea. Port areas have increased activity but your risks are greater. Move to a different part of your patrol area after making an attack otherwise you will attract ASW ships and merchant ships will avoid the area.

### **SubPac Patrol Areas**

Richest areas are, in order of priority, Formosa and Luzon Straits, Southern Japan, Sea of Japan, and the East China Sea.

### **The Central Pacific**

In the first months of the war, there is a serious threat of Japanese warship raids against Wake and Midway Island. After mid-1942, subs are no longer assigned to this area.

### **Western Pacific**

During early months of the war major elements of the Japanese fleet travel through the area.

### **Northern Japan**

General cargo traffic can be found along the Japanese coast, especially the southwestern areas.

### **Sea of Japan**

Only between June and October 1943, and most of 1945, were SubPac patrols allowed. During 1945, this is about the only zone with significant Naval traffic. Entrances along the Japanese coastline are heavily guarded. The Korea (Tsushima) Straits are heavily mined and patrolled, as is the Tsugaru Strait between islands Hokkaido and Honshu. The northernmost entrance is easiest to pass.

### **Southern Japan**

Includes heavy traffic along southern coast of Japan. Open sea to the south has military convoys.

### **Mariana Islands**

Most supply and troop convoys pass along the western edge of the Marianas.

### **Yellow Sea**

Extremely shallow and dangerous. Largest concentration of Japanese troop ships is along the southwest coast of Korea.

### **East China Sea**

Straddles the main shipping route between Japanese home islands and the empire's possessions to the south. During the first months of war, warships and troop transports travelled south. Thereafter, large amounts of raw materials coming to Japan pass through. Military supplies and troops to the south continued, growing from late 1943 to late 1944.

### **Formosa and Luzon Straits**

Virtually all Japanese shipping from the southern possessions to the home islands travelled through these two straits. The straits are patrolled by anti-submarine forces.

### **Palau Islands**

These islands are the main fleet bases of the Imperial Japanese navy.

### **Truk & Marshall Islands**

Truk is the great island fortress guarding the eastern border of the Japanese empire. Until early 1944, Truk is the origin and destination of numerous military troop and supply convoys. The Marshalls have very little shipping or naval activity.

### ***SubsAsiatic and SubSoWesPac Patrol Areas***

#### **Solomon Islands**

Throughout the last half of 1942 this area is the scene of intense naval combat.

#### **New Guinea**

Until early 1944 Japanese transports and supply ships sail to various ports along the north coast. There is virtually no traffic along the south coast.

#### **Celebes**

During early 1942 cruisers, battleships and carriers inhabit this area. Then in late 1944, large warship groups muster in preparation for great naval battles in the Philippines Sea.

#### **Java Sea**

Individual ships and small convoys sail constantly from Java, all heading for the South China Sea toward the Formosa and Luzon Straits. The area only sees large warships during the first months of 1942 and then again in 1945.

#### **Philippines**

Manila, on the large northern island of Luzon, is a major port for reinforcing troops and supplies. The southern area lies along important shipping routes with tankers and supply convoys.

### **South China Sea**

This area briefly sees warfleets steaming southward in early 1942. Thereafter, it is mostly merchant shipping along the coast of Indochina and southern China.

### **Malaya**

Japanese warships frequented this area in early 1942 and again in late 1944 and early 1945 when Brunei becomes a major fleet anchorage for warships unable to find fuel elsewhere.

## CONTROLS

### Starting & Ending Options

Action	With Keyboard	With Joystick	Notes
move cursor	cursor keys	joystick	-
make selection	R	joystick button #1	-
more options	R	joystick button #1	-
clear the hall of fame	C	C	only on hall of fame screen

**War Patrol Controls:** These apply only in war patrol or war career scenarios. The controls are active only on the large map of Pacific.

Action	With Keyboard	With Joystick	Notes
Pacific Ocean Chart	1	1	-
Gauges	5	5	-
Damage Report	6	6	-
Captain's Log	7	7	-
Move North	numeric keypad 8	joystick up	moves boat north on Pacific map
Move Northeast	numeric keypad 9	joystick up and right	moves boat northeast on Pacific map
Move East	numeric keypad 6	joystick right	moves boat east on Pacific map
Move Southeast	numeric keypad 3	joystick down and right	moves boat southeast on Pacific map
Move South	numeric keypad 2	joystick down	moves boat south on Pacific map
Move Southwest	numeric keypad 1	joystick down and left	moves boat southwest on Pacific map
Move West	numeric keypad 4	joystick left	moves boat west on Pacific map
Move Northwest	numeric keypad 7	joystick up and left	moves boat northwest on Pacific map
See Ports	P	P	shows sub bases and enemy ports on map
End Message	R	joystick button #1	continues with war patrol
Engage Conflict	Y	joystick button #1	only when logbook shows a contact
Refuse battle	N	joystick button #2	only when logbook shows a contact
Messages on/off	a M	a M	toggles war event messages on/off

**Battle Controls:** These apply in all battles, including battles during war patrols and war careers.

Views	View	With Keyboard	With Joystick	Notes
	Charts	1	1	-
	Bridge Lookout	2	2	only if on surface
	Periscope	3	3	only if periscope raised
	Bridge TBT	4	4	only if on surface
	Gauges	5	5	-
	Damage Report	6	6	-
	Captains Log	7	7	-

<b>Viewpoint Control</b>	<b>Action</b>	<b>With Keyboard</b>	<b>With Joystick</b>	<b>Notes</b>
	Zoom View	Z	Z	charts, periscope or TBT views
	Unzoom View	X	X	charts, periscope or TBT views
	Info Panel On/Off	V	V	toggle on charts view only
	Ship ID Book On/Off	B	B	charts, lookout, periscope or TBT views
	Recentre Chart	C	C	charts view only
	Look Left	,	stick left	lookout, periscope or TBT views
	Look Left Fast	<	stick far left	lookout, periscope or TBT views
	Look Right	.	stick right	lookout, periscope or TBT views
	Look Right Fast	>	stick far right	lookout, periscope or TBT views
<b>The Con (Movement Controls)</b>	Set View to Course	M	M	instantly changes view to 'ahead'
	TDC On/Off	/	fire button #2	slaves view to marked target
	<b>Action</b>	<b>With Keyboard</b>	<b>With Joystick</b>	<b>Notes</b>
	Turn Port (left)	cursor left	cursor left	can use numeric keypad with numlock off
	Turn Hard Port	s + cursor left	s + cursor left	" "
	Turn Starboard (right)	cursor right	cursor right	" "
	Turn Hard Starboard	s + cursor right	s + cursor right	" "
	Dive	cursor down	cursor down	" "
	Crash Dive	s + cursor down	s + cursor down	" "
	Rise	cursor up	cursor up	" "
<b>Combat Controls</b>	Blow All Tanks	s + cursor up	s + cursor up	" "
	Straight and Level	B	B	stops turns, rises and dives
	Periscope Depth	8	8	go to 55' depth
	Set Course to View	N	N	-
	Ahead Flank (4 engines)	4	4	use number keys, not numeric keypad
	Ahead Full (3 engines)	3	3	" "
	Ahead Half (2 engines)	2	2	" "
	Ahead Slow (1 engine)	1	1	" "
	All Stop (0 engines)	5	5	" "
	Reverse (-4 engines)	6	6	" "
<b>Combat Controls</b>	<b>Action</b>	<b>With Keyboard</b>	<b>With Joystick</b>	<b>Notes</b>
	TDC On/Off	/	fire button #2	target must be marked to turn on
	Fire Torpedo	R	fire button #1	bow or stern tubes depends on sub facing
	Fire Deck Gun	Z	Z	TDC must be locked on target
	Periscope Up/Down	9	9	toggles 'scope up and down

Action	With Keyboard	With Joystick	Notes
Gun Up (+) 1°	=	=	elevates deck gun 1°
Gun Down (-) 1°	-	-	depresses deck gun 1°
Torpedo Fast/Slow	0	0	toggles Mark 14 torpedo speed and range
Launch Debris	7	7	only once per battle

**Battle Charts Colour Key:** Information on battle charts is colour-coded as follows

Item	VGA/MCGA 256-colour	EGA/Tandy 16-colour	CGA 4-colour
Your Submarine	Yellow, Black bow	Yellow, Black bow	Purple, Black bow
Enemy - Visual Contact	White, Black bow	White, Black bow	White, Black bow
Enemy - Radar Contact	Grey, Black bow	Grey, Black bow	Black, Black bow
Enemy - Sonar Contact	Black, Black bow	Black, Black bow	White, Black bow
Wake (any ship)	Pale Blue	Pale Blue	White
Deep Water	Dark Blue	Dark Blue	Light Blue with Black grid
Shallow Water	Light Blue	Light Blue	Light Blue with White grid

### Computer Controls

Action	With Keyboard	With Joystick	Notes
End this Battle	8	8	unavailable if enemy too close
Accelerate Time	9	9	slowest time is '1', fastest is '8'
Decelerate Time	0	0	slowest time is '1', fastest is '8'
Animation On/Off	a A	a A	toggles animation on and off
Pause	a P	a P	pauses game
'Boss' Hide Game	a B	a B	toggle that hides and displays game
Save Game	a S	a S	saves game to one of five (5) files
Restart Game	a R	a R	sends you to initial options
Quit to DOS	a Q	a Q	quits game, sends you to DOS
Joystick Adjust	a J	a J	recentres joystick
Volume Adjust	a V	a V	adjusts sound from level 0 to 3

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# SILENT SERVICE II - PROTECTION

## Japanese Ships

### BBH Super-Battleships

(Yamato Class Illustrated)

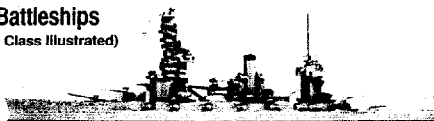


### BBH Super-Battleships

Max Speed: 27 knots    Torps to Sink: about 12

### BB Battleships

(Fuso Class Illustrated)



### BB Battleships

Max Speed: 25 knots    Torps to Sink: about 9

### CV Aircraft Carrier

(Kaga Class Illustrated)



### CV Aircraft Carrier

Max Speed: 28-34 knots    Torps to Sink: about 6 (less if vulnerable)

### DE Destroyer Escort

(Matsu Class Illustrated)



### DE Destroyer Escort

Max Speed: 28 knots    Torps to Sink: about 1

### PC Patrol Craft

(Type C Illustrated)



### PC Patrol Craft

Max Speed: 16-19 knots    Torps to Sink: usually 1

### Troop Transport



### Troop Transport

Max Speed: 8-17 knots    Torps to Sink: 1-3, varies with size

### **CA Heavy Cruiser**

(Myoko Class Illustrated)



### **CA Heavy Cruiser**

Max Speed: 34-35 knots    Torps to Sink: about 4

### **CL Light Cruiser**

(Kuma Class Illustrated)



### **CL Light Cruiser**

Max Speed: 35-36 knots    Torps to Sink: about 2 or 3

### **DDAA Destroyer**

(Akizuki Class Illustrated)



### **DDAA Destroyer**

Max Speed: 33 knots    Torps to Sink: about 2

### **Oil Tanker**



### **Oil Tanker**

Max Speed: 6-14 knots    Torps to Sink: 1-3, varies with size, more if empty

### **Converted Factory Ship**



### **Converted Factory Ship**

Max Speed: 8-16 knots    Torps to Sink: 2-4, more if empty

### **Large Freighter**



### **Large Freighter**

Max Speed: 6-15 knots    Torps to Sink: 2 or 3, more if loaded bulk carrier



### **DD Destroyer**

(Fubuki Class Illustrated)



### **DD Destroyer**

Max Speed: 34-38 knots    Torps to Sink: about 2

### **Small Freighter**



### **Small Freighter**

Max Speed: 6-14 knots    Torps to Sink: 1 or 2, more if loaded bulk carrier