

SILENT  HUNTER
COMMANDER'S EDITION

DATA BOOK

BEFORE YOU BEGIN...

We know you're anxious to begin SILENT HUNTER, but before you do, please be sure that your system meets the following minimum system requirements:

- 486DX/66 MHz IBM PC or compatible
- 8 MB of RAM
- MS-DOS 5.0 - 6.22
- An Uncompressed hard drive with 35 MB free for the small install
- A 1 MB SVGA graphics with a color SVGA Monitor
- A 2X speed CD-ROM drive (350 ms access and 300 KB transfer rate)
- A 100% Microsoft or Logitech compatible mouse
- Microsoft mouse driver version 9.0 or higher, or Logitech mouse driver 6.24 or higher

The minimum amount of free base RAM required is:

- 500,000 BYTES OF FREE BASE RAM
- 6,900,000 BYTES OF FREE XMS

Remember, 1K is equal to 1024 bytes. For example, 500K equals 512,000 bytes.

Users with 8 MB systems who have TSR (Terminate and Stay Resident) files loaded high (including RAM caches such as Smartdrive) may have to create a boot disk to run SILENT HUNTER. Refer to the "Troubleshooting" section for more details.

If you get the following error when you begin the game: "Failed to Init Heap", then you must create a boot disk. (This error means that your computer doesn't have enough XMS to run the game).

NOTE: Hard drive size and total system memory available have no bearing on free RAM. Follow the directions in the "To Check Your Free Base RAM" section to determine if you have enough available memory to run the game.

BOX CONTENTS

Your game box should contain one CD-ROM disc (CD), one SILENT HUNTER User Manual, the "U.S. Pacific Submarines in World War II" booklet, and this SILENT HUNTER Commander's Edition Data Book.

Windows® 95 Users

If you run SILENT HUNTER through the Windows® 95 environment, SILENT HUNTER may lock up at random times and might run substantially slower. We recommend that you run the game in DOS Mode, but if you are going to run in Windows 95, you must make sure no other applications are running, and your screen saver is turned off. Running SILENT HUNTER under Windows 95 is not recommended.

To Check Your Free Base RAM

Type MEM from within the DOS directory. The free base RAM is listed as "LARGEST EXECUTABLE PROGRAM SIZE." Compare the listed amount to the amount of free memory required by the game. Also listed is "FREE EXTENDED MEMORY" (or free XMS). If your amount is lower than the game requires, follow the instructions for making a "boot disk" given under the "Memory" section of this data card, or free up additional memory (see the Memory Management section of your DOS manual) before continuing.



INSTALLING THE GAME

The game cannot be played from the CD, some files must be installed to your hard drive before you can begin play.

1. To install the game, place the CD in your CD-ROM drive. Be sure this drive is the active drive. For example, to make drive D the active drive, type D: and then press Enter.
2. Type INSTALL and press Enter. Four installation choices are displayed:

Small Install	Animation and Speech on CD	(35 MB)
Regular Install	Animation only on hard disk - faster Animation	(47 MB)
Large Install	Speech only on hard disk - faster Speech access	(75 MB)
Maximum Install	Animation and Speech on hard disk	(88 MB)

3. Follow all on-screen prompts.

For all of the install options other than Maximum Install, the speech and/or animation will be read from the game CD during play. Loading either speech or animation from the CD may cause delays during game play.

If you experience problems during installation, please refer to the "Troubleshooting" section of this data card. Additional information regarding memory, sound, video, and mouse setup can be found there.

STARTING THE GAME

1. Boot your system normally with MS-DOS 5.0 or greater.
2. Insert the CD into the CD-ROM drive.
3. Be sure that the hard disk containing the game is the active drive.
4. Change the current directory to the game's directory. For example, to change to the default directory type CD \SILENT and press Enter.
5. Type SH and press Enter to start the game.

For complete and specific "how to play" information, please refer to the User Manual. Any notes regarding changes to the game made after the User Manual was printed, or any rules errata can be found in the README.TXT file. Please read the README.TXT file in your game directory for more information.

SAVING GAMES

SILENT HUNTER requires space on your hard drive for saved games and temporary files. You need approximately 10,000 bytes free on your hard drive for each saved game, after installing the game.

TROUBLESHOOTING

This section provides you with several easy steps to solve some common problems.

MEMORY

This game requires 500,000 bytes of free base memory and 6.9 MB of XMS memory to run. Read the "To Check Your Free Base RAM" section to find out how to check your free RAM. If your system does not have enough free base memory, the game may tell you in the form of an error message or it may crash after startup or during play. Not having files and buffers set correctly for the program can result in corrupted data in saved games and/or crashes during play.



HOW TO MAKE A BOOT DISK:

You can free more conventional memory and eliminate most potential problems by creating a boot disk. A boot disk is the best way to temporarily change your system's configuration without any risk. Note: this boot disk maker will not run under Windows '95. You must be in DOS mode to use the boot disk maker.

1. Place a blank disk in your A: drive. (this must be your A: drive to operate properly)
2. Place the game CD in the CD-ROM drive.
3. Change the active drive to the CD-ROM drive (usually D:) by typing D: and pressing enter.
4. Type the word BOOT and press enter.
5. Follow the on-screen prompts until the program is finished.
6. Reboot your system with the Boot disk in the A: drive and then change to the game directory and start game.

VIDEO CARDS/VESA DRIVERS

The following video cards are supported: ATI; Cirrus (Cirrus Logic); Diamond (many cards, may require individual drivers); Genoa; Orchid; Tseng (ET 4000)

If you are experiencing any problem with your video/VESA driver, type SH /V at the command line, rather than SH. This enables a universal VESA driver which is compatible with the video cards list above.

MOUSE SETUP

If your mouse is not functioning, you should make sure the driver has been loaded for use with DOS-based programs. Windows and other programs of its type have built-in mouse drivers that do not function outside of their environment. Loading a mouse driver may be as simple as typing MOUSE (and pressing Enter) before starting the game. Since the command differs from mouse to mouse, you may need to consult your mouse user's guide for the location and name of your particular driver software.

If your mouse is acting erratically, it may be due to an old mouse driver for your mouse, or it may not be fully Microsoft or Logitech compatible. Check with the mouse manufacturer to see if there is an updated mouse driver available.

SOUND CARDS

The following sound cards are supported: UltraSound, Sound Blaster 16; Sound Blaster Pro III; Sound Blaster Pro II; Sound Blaster Pro I; Sound Blaster Regular; Media Vision PAS-16.

If you are experiencing problems with your sound card, try running the diagnostic software that comes with your card. Eighty percent of all sound card problems are due to mistaken configurations. If you are running a sound card that is not listed above, or are running a sound card in an emulation mode, your results may not be optimal. This game was tested only on the listed cards.



If you are experiencing problems with the game, try configuring the game for No Sound. If the game will now run normally (but without sound, of course), then you probably need to reconfigure your sound. Type SETSOUND from the SILENT subdirectory, choose "NO" when asked to accept the default settings, correct the IRQ setting, and try starting the game again. If your game still will not run, consult the manual that came with your sound card for diagnostic procedures.

The SILENT HUNTER sound installer lists several sound cards that are not supported by the game or SSI Technical Support. If you have a sound card that is not on the list of supported sound cards, you may have to set the sound up for Sound Blaster emulation or run the game with no sound.

CONTACTING SSI TECHNICAL SUPPORT

If you are having problems, please consult the "Troubleshooting" section of this data card before calling technical support. We have a staff of technical support specialists ready to help you with any problem you may encounter with the game.

If your problem is due to your system configuration they will tell you of the game's requirements and suggest some possible solutions. Because of the millions of different hardware and software combinations possible with today's PCs, you may still have to consult with your computer dealer, hardware manufacturer, or software publisher in order to properly configure their product to run with our game.

If at all possible, be near your computer when you call. The technical support specialist will need specific information about your machine and may need you to access or change some files while you are on the phone. If it is not possible to be near your computer, be sure to have the following information:

A listing of all of your machine's hardware and its settings.

The contents of your AUTOEXEC.BAT and CONFIG.SYS files.

All the information listed after the MEM command (read the "To Check Your Free RAM" section for pertinent information).

The current configuration of your game.

Our technical support number is (408) 737-6850. Our hours are 11 a.m. to 5 p.m., Pacific time, Monday through Friday, holidays excluded. **ABSOLUTELY NO GAME PLAYING HINTS WILL BE GIVEN THROUGH THIS NUMBER.** If you cannot get through during our normal business hours, please fax our Technical Support Dept. at (408) 737-6814. Please include a printout of your CONFIG.SYS and AUTOEXEC.BAT files along with a complete description of the problem.

SSI ONLINE

Strategic Simulations, Inc. is currently represented on two online networks: CompuServe and America Online. We also maintain a home site on the World Wide Web. You can reach us on these networks as stated below.

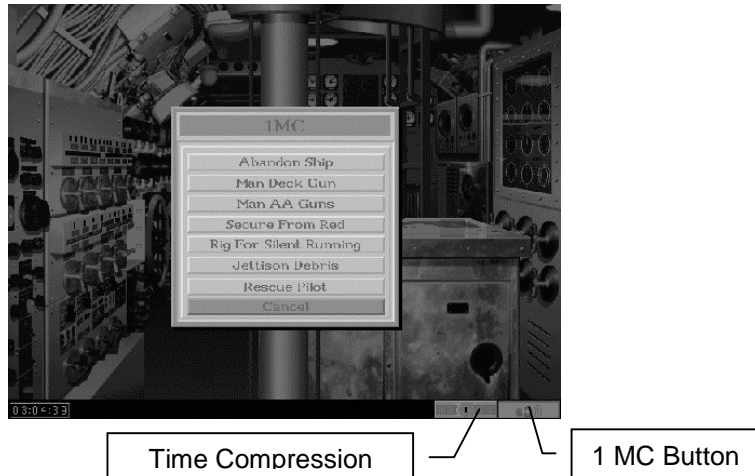
World Wide Web: <http://www.ssionline.com>



America Online E-Mail: Stratsim
CompuServe E-Mail: 76711,250
SSI Files/Discussion can be found at GO SSIFORUM

VERSION 1.1, 1.2, AND 1.3 UPGRADES

The SILENT HUNTER Commander's Edition contains the latest upgrade to the SILENT HUNTER engine, version 1.3. Additional features not included in the SILENT HUNTER User Manual are detailed following.



1 MC Menu

The 1MC button appears in the lower-right corner of the Control Room screen, and opens a menu with several options. Depending on the submarine's physical location, on the surface, submerged, running deep, and so on, some options may not be available.

Abandon Ship

If the submarine is on the surface or submerged in less than 180 feet of water, you can order the crew to abandon and scuttle the submarine by clicking on this button. You are prompted to confirm this decision, similar to the Abort option. Abandoning ship is not permitted at depths below 180 feet because none of the crew would make it to the surface alive.

Abandoning ship during a scenario or encounter simply ends the mission. During a campaign, your commander and his crew can be rescued, or captured by the enemy. If they are rescued, your commander can be given another submarine.

Man Deck Gun

This option orders the crew to man the deck gun and fire at the nearest target. This is identical to going to the Deck Gun station and placing it on Auto. The crew's chance to hit is based on the distance to the target and their quality setting.



Man AA Guns

This option orders the crew to man the anti-aircraft guns and fire at any attacking aircraft. There is no "Anti-aircraft gun" station, so manual control is not possible. The crew's chance to hit is based on the distance to the target and their quality setting.

Rig for Red / Secure from Red

Rigging for Red activates red lighting in the Control Room, to allow for better night vision. Securing from Red deactivates red lighting.

Rig for Silent Running / Secure from Silent Running

Silent running is the precursor to modern stealth technology. A submarine under silent running moves at roughly 1/3 ahead, with all unnecessary functions, movement, and noise curtailed as a measure to avoid detection by the enemy. **Note:** Torpedoes are not reloaded while Running Silently.

Jettison Debris

The only way a surface vessel could tell if a submarine had been destroyed, was when debris and fuel oil floated to the surface. Canny submarine commanders learned that jettisoning a mixture of those items was a ruse that could occasionally permit escape from a determined hunter. Obviously, this technique works best in deeper waters, where it is less likely for an observant patrol craft or destroyer crew to see the submarine.

Rescue Pilot

On Lifeguard Duty missions, downed pilots must be picked up to complete the mission. This option on the 1MC menu has the same effect as pressing the "E" key. Any visible, downed pilot within 200 yards of the submarine is "extracted," or rescued. Note: The submarine must be traveling at 5 knots or less.

New Special Missions

Two new missions have been added to the Special Mission menu, the Photo Recon and Submarine Encounter missions.

Photo Recon Mission

The Photo Recon mission takes advantage of a submarine's ability to approach a target (hopefully) undetected, gather valuable intelligence, and escape.

You are assigned to Photo Recon missions in campaigns via a radio transmission. In addition to the radio message a red "T" icon appears on the chart screen over the facilities to be photographed. In order to successfully complete a Photo Recon Mission the sub must move close enough to the target area. A "red" light, located in the TBT or Periscope viewing area will indicate the sub is close enough to take a picture. The "TAB" key is used to take the photograph. You know the mission has been accomplished when the "T" icon disappears from the chart screen; this is accompanied by a voice and text message stating "Mission completed, sir." Scoring - Each completed Photo Recon mission is worth 500 points at the 100% realism setting. NOTE: Photo Recon missions can only be accomplished during daylight hours. It is best to remain completely zoomed out (1x) in order to locate the area that needs to be photographed.



Life Guard Duty

Like the Photo Recon mission, in campaigns, you receive orders via a radio transmission. A red "T" icon will appear over the port that will be bombed by American aircraft. The user can watch the airstrike in progress while sitting off the coast of the target area; the attacking bomber group appears on SD radar, and on the Chart screen. After the airstrike is finished, blue triangle icons appear indicating the approximate location of downed pilots. When the pilots are spotted, you get a voice and text message stating "Downed Pilot spotted." As the sub closes within 200 yards of the downed aviator a "We're close enough for a rescue, sir!" voice and text message informs you that the pilot can be extracted. The sub must slow down to 5 knots or slower and then press the "E" key OR the sub can run over the pilot in order to pick him up. Scoring- each pilot saved is worth 200 points at 100%. NOTE: Pilots can only last a limited time in the water before being captured or succumbing to the elements. So it is entirely up to you if one of America's valiant sons resides with NEPTUNIS REX in his watery domain or perishes in a prison camp.

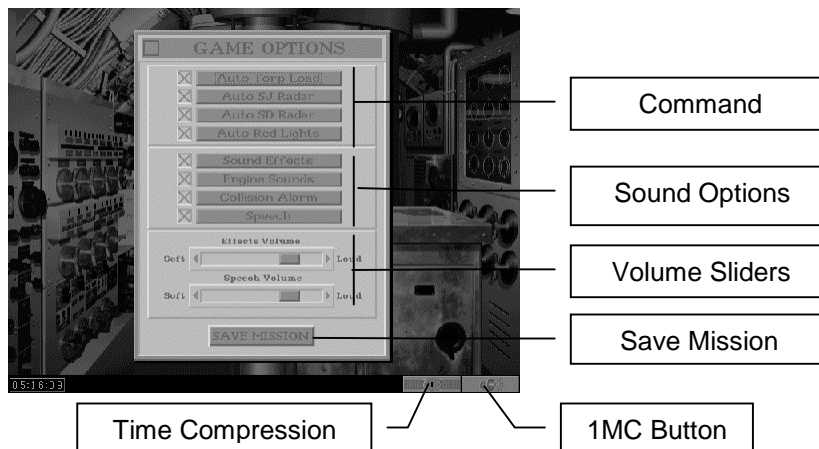
Submarine Encounter Mission

This type of mission is set up similarly to a Warship Encounter with the weather conditions, time of year, and crew quality for both vessels being set by you.

Ship Identification Manual

Other enhancements to the SILENT HUNTER engine include "tabbed" pages in the Ship Identification Manual corresponding to the classes of vessel portrayed:

- BB — Battleships
- CV — Aircraft Carriers
- CA — Heavy Cruisers
- CL — Light Cruisers
- DD — Destroyers
- DE — Destroyer Escorts
- PC — Patrol Craft
- MR — Marus (Merchant shippi



Game Options Menu

Pressing Alt-O during a mission opens the Game Options menu where several "command" functions and sound effects can be toggled on or off. There are also slide controls for speech and sound effects volume.

Command Functions

These options can be toggled off or on to enhance realism by letting the crew handle these operations with or without direct orders.





- Auto Torp Load — Automatically causes torpedoes to be reloaded when on. When off, torpedoes must be loaded by going to the Status screen and moving torpedoes from storage to their tubes using the mouse.

- Auto SJ Radar — When toggled on, this option activates the radar, on submarines equipped with radar, as soon as the submarine is at radar depth (a depth of approximately 50 feet). Otherwise, the radar must be switched on manually in the Radar room.

- Auto SD Radar — When toggled on, this option activates the radar, on submarines equipped with radar, as soon as the submarine is at radar depth (a depth of approximately 50 feet). Otherwise, the radar must be switched on manually in the Radar room.

- Auto Red Lights — Automatically switches to Rigged for Red mode as soon as darkness falls and switches back to Secured from Red at dawn. Otherwise, this option must be switched on using the 1MC button in the control room.

Sound Effects

The sound effects controls toggle the sound on or off for: Sound Effects (all sound effects), Engine Sounds, Collision Alarm, and Speech.

Save Mission

Left-clicking on the Save Mission button allows the current mission to be saved. You are prompted for a name to save the mission under.

Continue Mission

The Continue Mission button has been added to the Single Mission menu to load missions saved with the Save Mission button. You are shown a listing of saved missions which displays the Mission Data at the bottom of the screen. Cancel returns to the Single Mission menu, Delete removes the file, and Begin resumes the mission where it was saved.

USER MANUAL CORRECTIONS AND ADDITIONS

Page 11, Base Menu Options, line 7 - there is no Officer's Club.

Page 50, Radar and Bathythermograph - Imp. SJ Radar was available in August 1943, not December 1942.

Page 68, Basic Approach Objective - 10 feet for a cruiser

Battery use

In order to charge the batteries, the sub must be surfaced, and running at standard speed or slower. At all stop, all available engines (to a maximum of 3 on a 4 engine sub) are automatically set to charge when appropriate. The battery's voltage gauge is located on the gauges screen (F7).



Radar And Land Masses

If you are near land at the start of a single mission, and cannot find the enemy on radar, the land mass may be masking enemy ships. Intervening land masses prevent radar sightings.

Returning To Base

You must be on surface out of visual contact of the enemy to return to base

Radio Logbook

The Radio Logbook is accessible from the captains quarters or by hitting Alt-F9. The user will be given a date, a time and a location of Life Guard or Photo Recon missions.

Reviewing Messages

To review a message that has been given by one of the crew members, press the backspace arrow until the desired message comes on-screen in the lower left of the screen. These messages will loop.

STARTING THE EDITOR

The SILENT HUNTER Scenario Editor can be started from within the game by choosing the Single Mission button from the Main Menu and then left-clicking on the Build Custom Mission button.

SCENARIO EDITOR MOUSE CONTROLS

SILENT HUNTER features an active mouse pointer; while the mouse pointer is over the map, the latitude, longitude, and depth at that position are displayed in the bar at the bottom of the screen. Moving the mouse over a screen object such as the player's submarine, a Japanese ship, or a Japanese city causes a small information window to open with useful details about that object.

In this book, the term "click" means move the mouse icon (an arrow, brackets, cross-hair box) to the desired area on the screen, and press either the left or right mouse buttons.

"Left-click" means move the mouse icon to the desired area and press the left mouse button. Left-clicking is used to select controls, place objects such as submarines, and press screen "buttons."

"Right-click" means move the mouse icon to the desired area and press the right mouse button. Right-clicking is used to toggle between the Toolbox window and File / Edit menus, and can be used to abort most controls before an option has been selected.

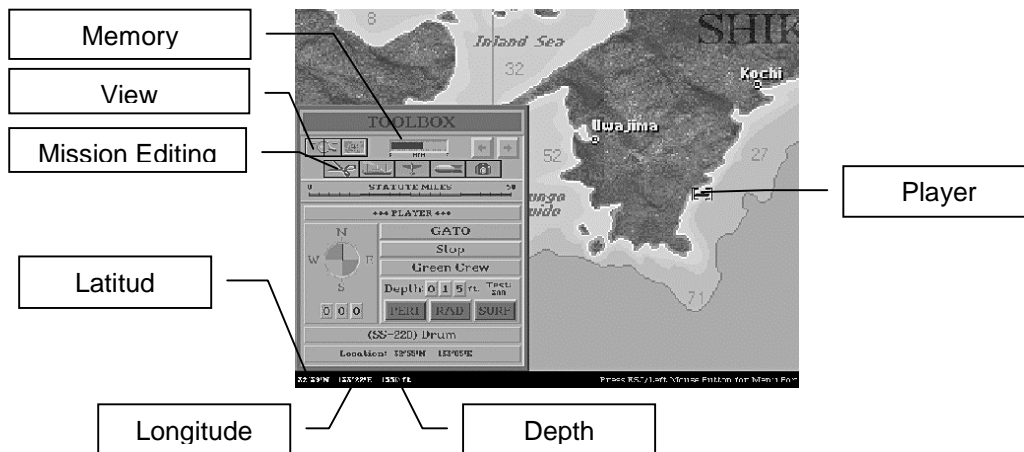
THE TOOLBOX

When the Scenario Editor title screen clears, the Chart screen appears. The default Chart screen shows the Southern Japan patrol area with the Toolbox window open. One object starts on the map, a blue icon representing the player's submarine. The default here is a T-class submarine. The active object is contained within white brackets.

The Scenario Editor operates by placing objects on the selected Patrol Area Chart.

These objects include the player's submarine; ships, both single and convoys; aircraft; and mission icons for photo reconnaissance and/or lifeguard duty missions.





Scenarios are built using a combination of two sets of controls, the first is called the Toolbox, the second is a Menu bar. Several buttons on the Toolbox window appear similar to buttons used in SILENT HUNTER; for example, the Zoom, and Centering buttons work the same as they would while commanding a submarine.

By moving the mouse pointer and left-clicking, the active object can be moved anywhere on the map. Moving the mouse pointer to the edge of the map scrolls the map in that direction until the edge of that patrol area is reached. In the lower left corner of the screen, the current latitude, longitude, and depth are displayed.

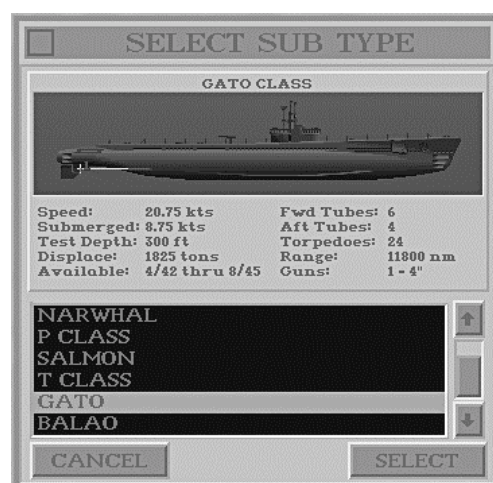
Right-clicking changes to the File / Edit menus, which displays the Menu bar. For more information about this see the "Menus" section starting on page 17.

The Player's Submarine

The first object on the Chart screen is the player's submarine. It starts out on the surface, with a green crew, facing due North at full stop unless changes are made in the Toolbox window.

Selecting the Class

The default submarine is a T-class, indicated by a button appearing under the PLAYER line on the Toolbox window. Left-clicking T-class where it says GATO opens the SELECT SUB TYPE window where the submarines available to the player are listed. Submarine availability is based on the date selected using the Environment menu option. If the Limited by Date toggle in the Options menu is inactive, then any U.S. submarine in SILENT HUNTER can be used. For more information see the "Environment" section starting on page 19 or the "Options" section starting on page 21.



Once a class of submarine has been chosen, the SELECT SUB NAME window appears. The names of the submarines listed were on active duty during that period of the war. Choose a name or left-click on Cancel to accept the default submarine. The submarine name appears on a button near the bottom of the Toolbox window. Left-clicking there restores the SELECT SUB NAME window, where the submarine name can be changed at any time.

Submarine Speed

The button below the selection button reads Stop as a default. Left-clicking on this button cycles through the following speed settings: Ahead 1/3, Ahead 2/3, Ahead Standard, Ahead Full, Ahead Flank, Back Emergency, Back Full, Back 2/3, Back 1/3 and returns to Stop.

Crew Quality

The Crew Quality button cycles through three options for crews on submarines: Green Crew, Veteran Crew, and Elite Crew.

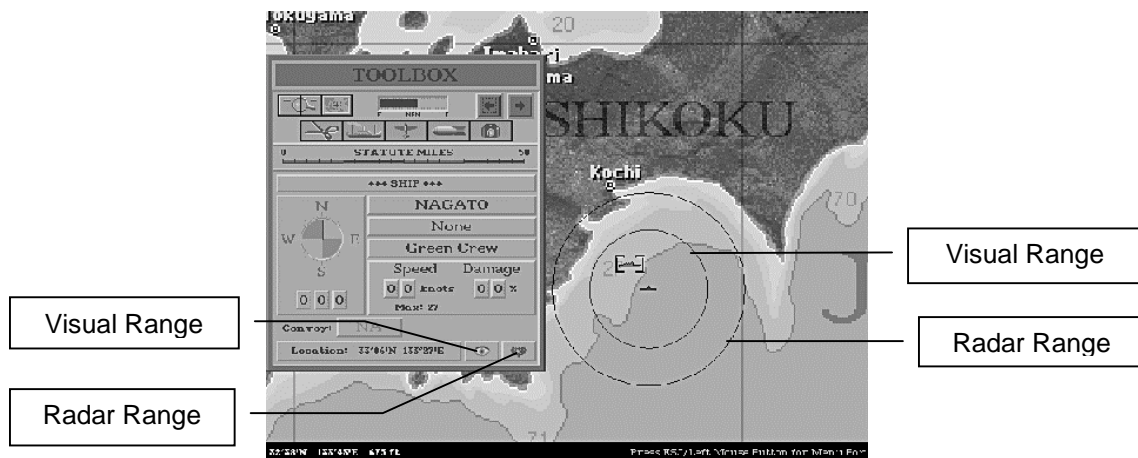
Crew quality on player's submarines affects loading and repair times, as well as their accuracy with anti-aircraft guns or the deck gun when it is set to Auto.



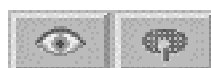
Depth

The Depth panel has three numerical buttons on it for setting the initial depth for the player's submarine. Left-clicking on these buttons sets the depth in increments of hundreds, tens, and zero to nine feet. Three other buttons, PERI, RAD, and SURF, set the submarine's depth at the following preset depths: Periscope depth is 65 feet, Radar depth is 48 feet and Surface depth is 15 feet. The submarine's test depth, which is the deepest it can submerge safely, is also listed for reference.

The Importance of Visibility



As soon as another ship or ships have been placed on the map, the Toolbox window and Chart screen change to reflect this. The player's submarine has a blue circle around it if the selected ship is inside visual contact range. A black circle indicates the effective radar detection range if the submarine is equipped with radar. Another way to check this is by using the Next-and Previous-Object buttons to select the ships you have placed. An "Eye" icon appears in the lower right corner if the active object is in visual range, and a "Radar" icon appears if the object is within radar range of the submarine.



Visibility is based on the size of the Japanese ship and quality of the submarine crew. If more than one enemy ship has been placed in the scenario, for example a small cargo ship and the battleship Fuso, use the Next– or Previous–Object buttons to switch from one to the other and watch the circle change size. Awareness of detection range is important because it is very easy to miss an enemy vessel on the open sea. Also, the scenario may end prematurely if there are no enemy vessels in contact range at the start of the scenario and the End on Break Contact option is active on the Options menu. For more information see the “Options” section starting on page 13.

The size of the circle can also be affected by environmental conditions. For more information see the “Environment” section starting on page 19. Note: If you place Japanese submarines close to Japanese ships, they can be attacked.

Mission Editing Controls

The top two rows of the Toolbox contain controls for adjusting the point–of–view, and adding and removing objects.



Zoom and Center View Buttons

The Zoom buttons increase and decrease the level of magnification in the Chart screen. The “+” button displays a zoom frame which can be placed over any area of the map. Left–clicking with the frame causes the magnification level to increase by one.

With the frame visible, pressing the “Z” key repeatedly shrinks the size of the frame, increasing the level of zoom when the mouse is left–clicked. Pressing the “X” key repeatedly increases the size of the frame, decreasing the level of zoom when the mouse is clicked.

Left–clicking the Center View button causes the active object to be centered on the screen.



Remove Object

Left–clicking on the Remove Object button opens a control window for undoing the placement of all types of objects with the exception of the player’s submarine. This object can never be removed, although it can be edited for type of submarine. For more information about this see the “Select Ship / Submarine Type” section on this page.



Add Ship

This button opens the Select Ship Type window, which displays the enemy warships, submarines, and merchant shipping available based on the date of the scenario. The ship listing is by type, starting with battleships, carriers, and continuing on through the merchant ships, and can be scrolled through using either the slide bar or the up– and down–arrow buttons.

Above the listing are the ship specifications including length, tonnage, depth charge load, and active dates. Above that are four views of the ship showing it broadside, head–on, and at 15° and 45° views.

Once a ship has been selected, the Add Ship window appears. The Zoom and Centering buttons work as described previously, and allow for more precise placement on the map screen. The Exit button aborts the process, as does right–clicking.



Next and Previous Object Buttons

Once another object besides the player’s submarine has been placed the Next– and Previous–Object buttons become active. They enable you to switch from object to object without having to scroll across the map.

Ship Controls Section

All movable objects in a SILENT HUNTER scenario must be assigned actions as part of the scenario design process. The following controls apply to Japanese ships and submarines.



Select Ship / Submarine Type

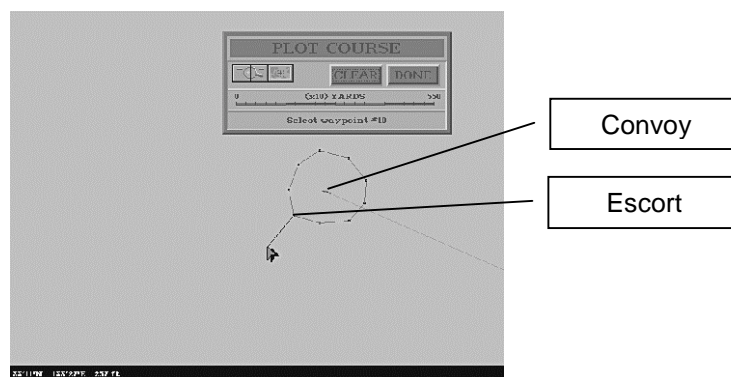
As you move from object to object using the Next– and Previous–Object buttons the name on the Object ID button changes to reflect the active object. The active object is also centered in white brackets. Left–clicking on the Object ID button displays the Select Ship Type window where the identity of the ship can be changed using the method described in the “Add Ship” section on this page.

Orders

If the active object is a ship or submarine, the button below the Object ID button is the Orders button. It functions slightly differently depending on whether or not the active object is a ship or a submarine. If the active object is a Japanese ship, it can be given several different kinds of orders depending on its class.

Capital and Merchant Ships

- None – No orders. The ship sits where it is placed even if given a course and speed using the Compass and Speed controls. **Note:** The ship can not move or fire weapons without orders.



- Convoy Leader – When the active ship is designated as a convoy leader, the Plot Course window appears, and the mouse pointer is connected to the ship with a drag–line. The mouse pointer and line can then be used to assign a course, via a series of way points, for the ship and its convoy to follow. When the course is complete, left–click on the Done button to complete the process and return to the Toolbox window. A convoy leader has a yellow cross inside a yellow box superimposed over it at high levels of magnification.

Left–clicking on the Clear button before the Done button clears the current way points and restarts the process.

A ship that is a convoy leader has an additional button appear in the Toolbox window; the Zigzag button. This button is an on/off toggle which causes the convoy to maintain a zigzag course when on. This tactic was used by Japanese ships to make themselves a harder target for U.S. submarines by sailing an unpredictable course.

- Convoy Member – A ship that is to be assigned as a convoy member should be placed on the map near its leader and have Convoy Member chosen for its orders. The Pick Convoy window appears, which features zoom, center, and Exit buttons. The Exit button defaults to the active ship of the first listed convoy, if there are more than one, and exits to the Toolbox window. A convoy member has a small yellow cross superimposed over it at high levels of magnification. Selecting a convoy manually can be done by left–clicking over a convoy on the map. Note that if the convoy leader has been assigned a course and speed, the new convoy member’s course and speed change to reflect that of the convoy.



Escort Ships

Destroyers, escort destroyers, and patrol craft can all have one of the following types of orders.

- None – No orders. The ship sits where it is placed even if given a course and speed using the Compass and Speed controls. Note: The ship can not move or fire weapons without orders.
- Escort – Escort orders create an escort for an existing convoy. Escort ships follow a pattern around the convoy they are assigned to until they make contact with a submarine. When the escort ship is placed, the Plot Course window opens. The mouse pointer shows a drag-line leading to the active escort ship which is used to describe the pattern that the escort ship will follow by setting a series of way points. An escort pattern can be set with as few as three way points, but this means the escort ship has to make more radical turns to maintain course, and this is likely to slow it down.

When the course is set, left-click on the Done button to enable the selection of the convoy to be escorted. The Plot Course window is replaced with the Pick Convoy window, which features zoom, center, and Exit buttons. The Exit button defaults the escort to the first listed convoy, if there are more than one, and exits to the Toolbox window. The escort's speed is set to allow it to keep pace with its convoy.

At the bottom of the Toolbox window, two new text buttons have appeared: the Convoy button, and the Alerted button. The Convoy button simply cycles through which convoy the escort is assigned to, if there are more than one. When the Alerted button is toggled on, the escort is aware of the submarine's presence before the player has a chance to order an attack.

- Patrol – Patrol orders establish a patrol route for an escort type ship. Once the active escort ship has been selected and placed, the mouse pointer shows a drag-line leading to it which is used to assign a series of way points that the escort ship will follow. Once the course has been laid, left-click on the Done button to return to the Toolbox window. Note that the Convoy button is inactive and that the ship cannot start in an Alerted state.

Japanese Submarines

- None – No orders. The submarine sits where it is placed even if given a course and speed using the Compass and Speed controls. **Note:** The submarine can not move or fire weapons without orders.
- Patrol – Patrol orders establish a patrol route for a submarine. Once the active submarine has been selected and placed, the mouse pointer shows a drag-line leading to it which is used to assign a series of way points to be followed during the scenario. This course can be either an open-ended or closed course, meaning that the Japanese submarine does not have to end its patrol where it started. Once the course has been laid, left-click on the Done button to return to the Toolbox window.

Sampans

- None – No orders. The sampans sits where it is placed even if given a course and speed using the Compass and Speed controls.
- Fishing – A sampan with fishing orders slowly meanders the patrol area it is assigned to making random course changes.



Crew Quality

The Crew Quality button cycles through three options for crews on ships and submarines: Green Crew, Veteran Crew, and Elite Crew.

Crew quality on Japanese ships affects their spotting, rate of fire, and accuracy.

Crew quality on the player's submarine affects loading and repair times, as well as their accuracy with anti-aircraft guns or the deck gun when it is set on Auto.

Course

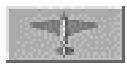
The compass panel in the Toolbox window is used to set the initial heading for all ships and submarines in the scenario. The default heading is 0°. This can be changed by left-clicking directly on the compass, or left-clicking on the number buttons until the heading is appropriate.

Speed

The speed of the active ship or submarine is set using these number buttons. The active ship's maximum speed is displayed at the bottom of the panel as a reference.

Damage

Ships can start a scenario with accrued damage. Left-clicking on the two numerical buttons can set the damage between 0 and 99%. Accrued damage makes a Japanese vessel easier to sink.



Add Aircraft

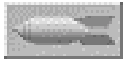
Left-clicking on the Add Aircraft button opens the Select Aircraft Type window, which is basically the same as the Select Ship Window. Once an aircraft has been chosen, the Orders window opens.

Aircraft Orders

Aircraft can be given three different kinds of orders:

- **Patrol** – Aircraft patrol a circular area determined by selecting a center point and a patrol radius. Selecting patrol orders opens the Select Point window; the center point is selected by left-clicking on the map where a green airplane icon appears. The patrol radius is set by dragging a line to the desired radius when the Select Radius window is open, and left-clicking again. A green circle appears around the aircraft at the desired radius. If an aircraft on patrol encounters the player's submarine in this area, it engages and pursues the submarine if possible.
- **Escort** – Escorts are placed on the map and given a patrol radius exactly like patrol aircraft, but there is a third step for them: they are then assigned to a convoy. An aircraft with escort orders "patrols" the area around the convoy it has been assigned to guard.
- **Follow Path** – An aircraft with follow path orders has a series of way-points assigned along a course which it must follow. The aircraft is placed by left-clicking on the map; this opens the Plot Course window. The course and way points are assigned by dragging the "string" to a selected point and left-clicking again. As each point is assigned, a shape is described in green which shows the aircraft's course. Move the mouse pointer to the Done button to complete this process, or the Exit button to abort it. Unlike Patrol or Escort orders, whose final steps return you to the Toolbox, the Follow Path orders must be ended with the Done button to take effect.



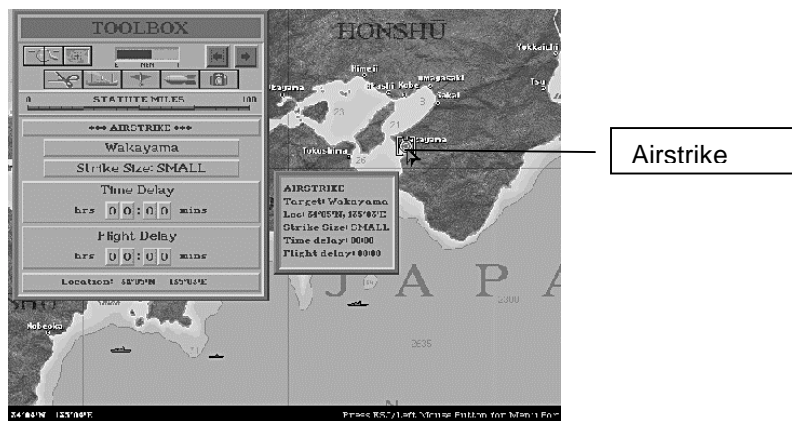


Add Airstrike Mission

Airstrikes are assigned to enemy coastal cities in order to create an opportunity for Lifeguard Missions. During an Airstrike, there is a chance for bombers to be shot down, making their crews available for rescue.

Select a City

Left-clicking on the Airstrike button opens the Select a City window, which contains a list of available targets in that patrol area. **Note:** When this window appears, the top city on the list is selected by default. Even if no other city is selected, or you change your mind and decide to set up another type of mission, that city has been assigned an Airstrike, and must have the “Airstrike” object removed using the Remove Object tool in order to abort this mission.



Once a city has been selected, the Toolbox window is restored with controls for defining the conditions for carrying out a Lifeguard Mission.

Below the bar labeled AIRSTRIKE, appears a long button bearing the name of the target city selected in the previous step, above another button which reads Strike Size: SMALL. The first button restores the Select a City window where another city can be chosen. Left-clicking on the Strike Size button cycles through the three sizes of bombing missions that can be assigned: SMALL, MEDIUM and LARGE. A larger Airstrike means more pilots are going to need to be rescued.

Message and Flight Times

The next two panels bear the legends Time Delay and Flight Delay. The Time Delay control determines when a radio message assigning the submarine to lifeguard duty is sent. The Flight Delay panel determines an approximate time for how long after the message is sent that the bombing mission actually occurs.

For example, if the settings in the Time Delay and Flight Delay panels are 1:00 and 6:00, the message ordering the submarine to a lifeguard station arrives approximately one “in-game” hour after the scenario starts, giving the submarine approximately six in-game hours to get to its station. The time is not exact in order to allow some leeway in arriving on-station.

An important factor to take into account when designing a Lifeguard Mission scenario is the amount of time required for a submarine to move from one place to another. During the war, submarines were usually notified well in advance of an airstrike to make sure that they were “on station” when the bombers arrived.



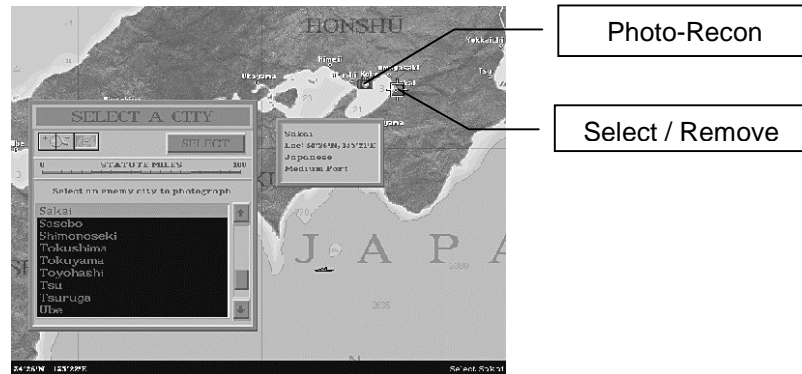
Photo Recon Mission

Photo Recon missions require the player’s submarine to sail into an enemy port and take photographs during daylight.



Select a City

Left-clicking on the Photo-Recon button opens the Select a City window, which contains a list of available targets in that patrol area. **Note:** When this window appears, the top city on the list is selected by default. Even if no other city is selected, or you change your mind and decide to set up another type of mission, that city has been assigned a Photo-Recon mission, and must have the "Photo-Recon mission" object removed using the Remove Object tool in order to abort this mission.



Setting Time Delay and Limit

The next two panels bear the legends Time Delay and Time Limit. The Time Delay control determines when a radio message assigning the submarine to the Photo-Recon mission is sent. The Time Limit # panel determines how long the player has to complete the mission after receiving orders.

MEMORY GAUGE

The Memory Gauge meter indicates how much of your computer's memory capacity is allocated to this scenario. Note: This number is based on your computer's memory configuration, so that 100% of the memory on a 16 megabyte system is 200% of the memory available on an 8 megabyte machine. It is possible to design scenarios which are too large to run. When you try to play a large scenario a dialog appears prompting you to continue or abort; continuing may cause the game to crash.

THE MENUS

Right-clicking the mouse anytime the Toolbox window is visible changes to the Menu screen where there are two sets of menu options: Files and Edit.

Files Menu

These menu options control file operations such as loading, saving, and deleting and exiting the SILENT HUNTER Scenario Editor.

Run

The Run option only appears if you have come to the SILENT HUNTER Scenario Editor from within SILENT HUNTER. It allows a scenario to be run as soon as it has been created. If you have started the SILENT HUNTER Scenario Editor from the DOS prompt by typing SE then this option does not appear.

When this option is selected, a warning appears if the player's submarine is beyond detection range, either visual or radar, and the Exit on Break Contact option is active. If this is the case, the scenario ends as soon as it is begun. If the scenario has not yet been saved, then you are prompted to save the scenario prior to playing.



New

This option resets to the default settings for the current patrol area. All objects are removed, environmental conditions reset to clear and calm, and the date and time are reset to December 7, 1941 and 12:00 hours. You are prompted to Save, Discard, or Cancel the current settings.

Load Historical

This option loads an historical scenario from SILENT HUNTER, the first SILENT HUNTER Patrol Disk, or SILENT HUNTER Patrol Disk 2. These scenarios cannot be saved over the original scenarios, but can be saved as conventional Scenario Editor scenarios using the Save Scenario option.

Load Scenario

This option loads scenarios you or someone else has created using the SILENT HUNTER Scenario Editor. If you wish to load a scenario created by someone other than yourself, copy the scenario into the CUSTOM subdirectory found in the directory where you installed the SILENT HUNTER Commander's Edition files.

Save Scenario

This option prompts you to name your scenario if this is the first time it has been saved, or lets you rename a previously saved scenario. If you are overwriting a previously saved scenario, you are prompted to make sure you want to overwrite that scenario. Scenarios are saved in the CUSTOM subdirectory of the directory where the game is installed.

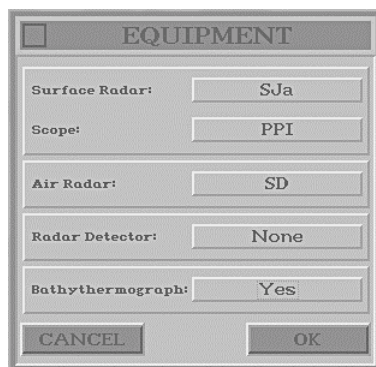
Delete Scenario

Using the Delete Scenario option you can remove a scenario from the CUSTOM directory without having to exit to DOS. You are prompted to confirm the deletion.

Exit

This option exits the Scenario Editor. You are returned to SILENT HUNTER if you entered the Scenario Editor using the BUILD A CUSTOM MISSION option. If you entered the Scenario Editor by typing SE.EXE at the DOS prompt, you return to the DOS prompt.

Edit



The Edit menu options allow for powerful customization of scenario features such as equipment, weather, patrol areas, and game options.

Password

Password protection is available with this option and permits the scenario to be played but not loaded into the Scenario Editor unless the password is known. Use this option with care and remember your password!

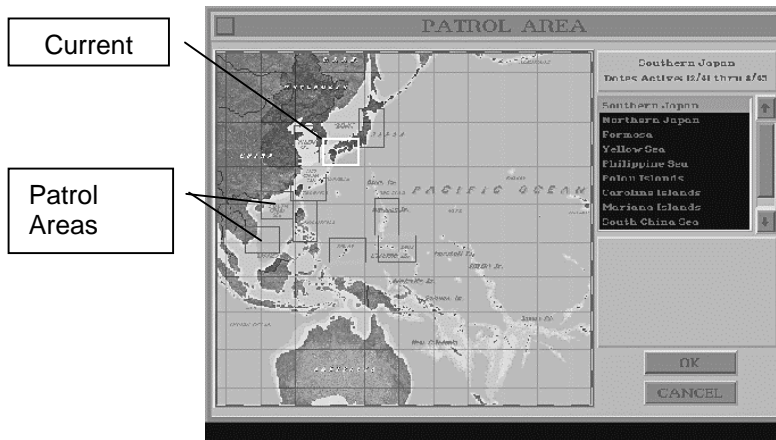
Briefing Text

Text entered here appears in the briefing window when the Load Custom Mission or Historic Mission options are made in SILENT HUNTER. Text automatically wraps within this window and the briefing window.



Patrol Area

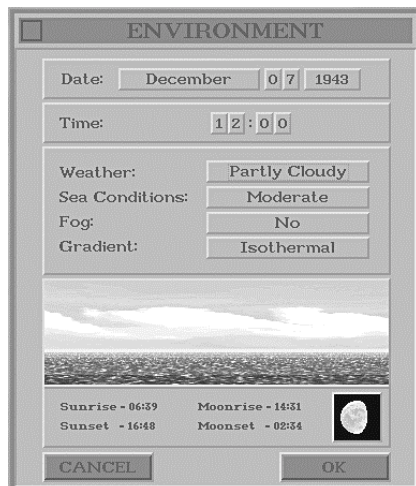
A screen displaying the Pacific Ocean from Asia to Hawaii and Australia to the Aleutians appears. Up to fifteen patrol areas are available; different patrol areas are made available based on the date set using the Environment menu.



Patrol areas can be selected using the list or by left-clicking on the small rectangles on the actual chart area of the screen. The areas of the map in red are under Japanese control at the time of the war currently set using the Environment menu option. Patrol areas may be unavailable if the Patrol Area toggle is "On" in the Limit by date panel of the Options window. For more information see the "Options" section starting on page 21.

Environment

The Environment options window allows the date, time, weather, and sea conditions to be changed, and displays the resulting changes in a panel near the bottom of the window. Below the weather display is a reference panel which displays the times for sunrise, sunset, moonrise, and moonset, as well as what the lunar phase is on the current date.



Date

The range of dates available is December 7, 1941 through August 15, 1945. This date setting affects a number of variables within a scenario if the Limit by Date options are active. For more information see the "Options" section starting on page 21.

Time

The time of day is adjusted by Left-clicking on the numerical buttons. Time is expressed in zulu terms, so that 12:00 is equivalent to 12 noon.

Weather

Alt F9 Go to Radio Log.
 Alt F10 Go to Calendar.
 'E' To extract downed pilots that are within 200 yards.
 'Tab' Takes a picture to complete the Photo Recon Special Mission. Press the 'Tab' key when you see the red light in the periscope or TBT.
Note: This does not actually save a screen capture.
 Alt-O Open the Game Options menu.
 Alt-S Toggles SJ radar on or off.

'M' Brings up the 1MC menu where you can engage new and existing features such as:
 • Abandon Ship
 • Man the Deck Gun
 • Man the Anti-Aircraft (AA) Gun
 • Rig for Red (for night vision)
 • Rig for Silent Running
 • Jettison Debris
 • Rescue Downed Pilot.
 Alt-A Toggles SD radar on or off.
 Alt-Q Quit Silent Hunter and return to the operating system.



APPENDICES

Table of Speeds

Class	Ahead 1/3	Ahead 2/3	Standard	Full	Flank
S-Class	5	7	9	12	14
Barracuda	5	9	13	15	17
Narwhal	5	10	12	14	16
P-Class	3	8	11	16	18
Salmon	4	9	14	17	19
T-Class	4	9	14	17	19
Gato	4	9	14	18	20
Balao	4	9	14	18	20
Tench	4	9	14	18	20

Speeds are in knots, for submarines on the surface in calm seas.

Radar and Bathythermograph

Name	Use	Range	Available
SD	Air	6-10 miles	Jan. 1942
SJ	Surface		Aug. 1942
Imp. SJ	Surface		Dec. 1942
A-Scope	Surface		Dec. 1941
PPI	Surface		Sept. 1943
APR-1 Radar Detector	Surface		May 1944
Bathythermograph	Submerged Thermal Layers		Mar. 1943

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