

PT 109



Torpedo Boat Simulation

OPERATIONS MANUAL

*Spectrum HoloByte*TM

Spectrum HoloByteTM

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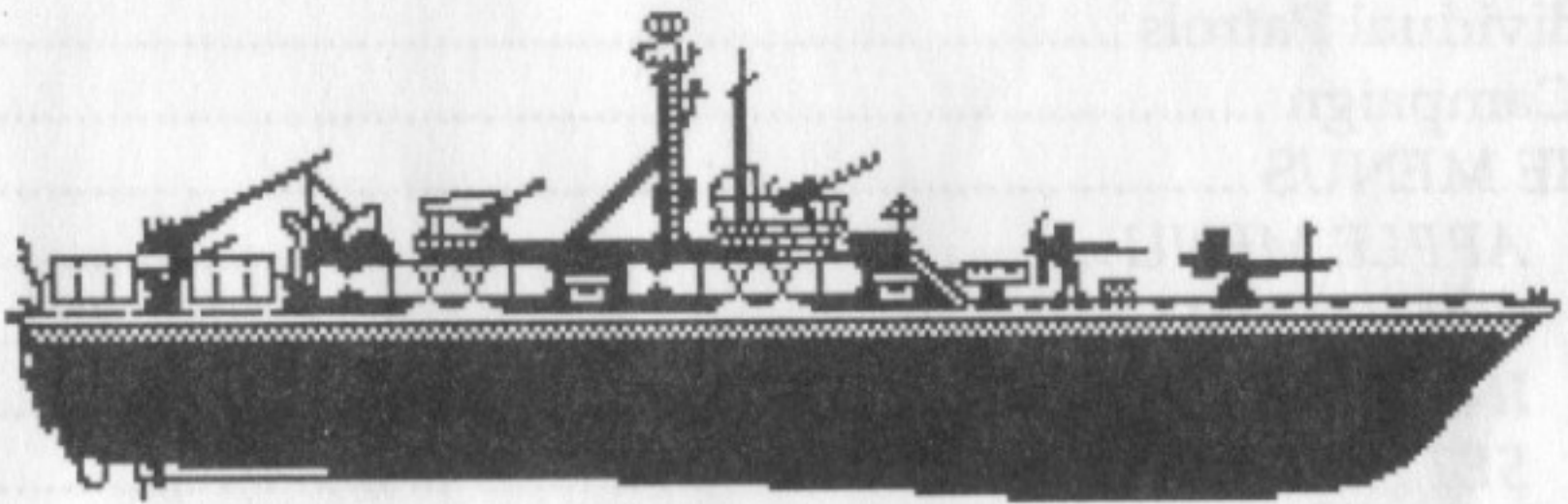
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TM

PT-109

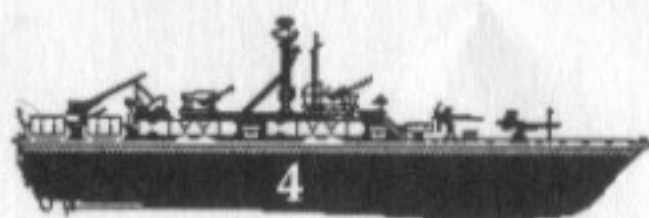
Torpedo Boat Simulation



OPERATIONS MANUAL

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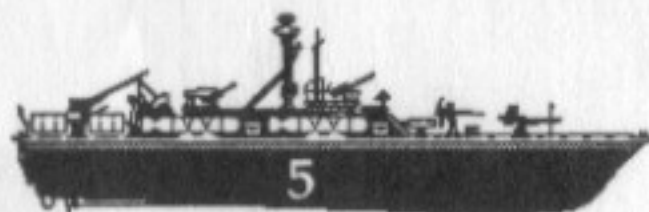
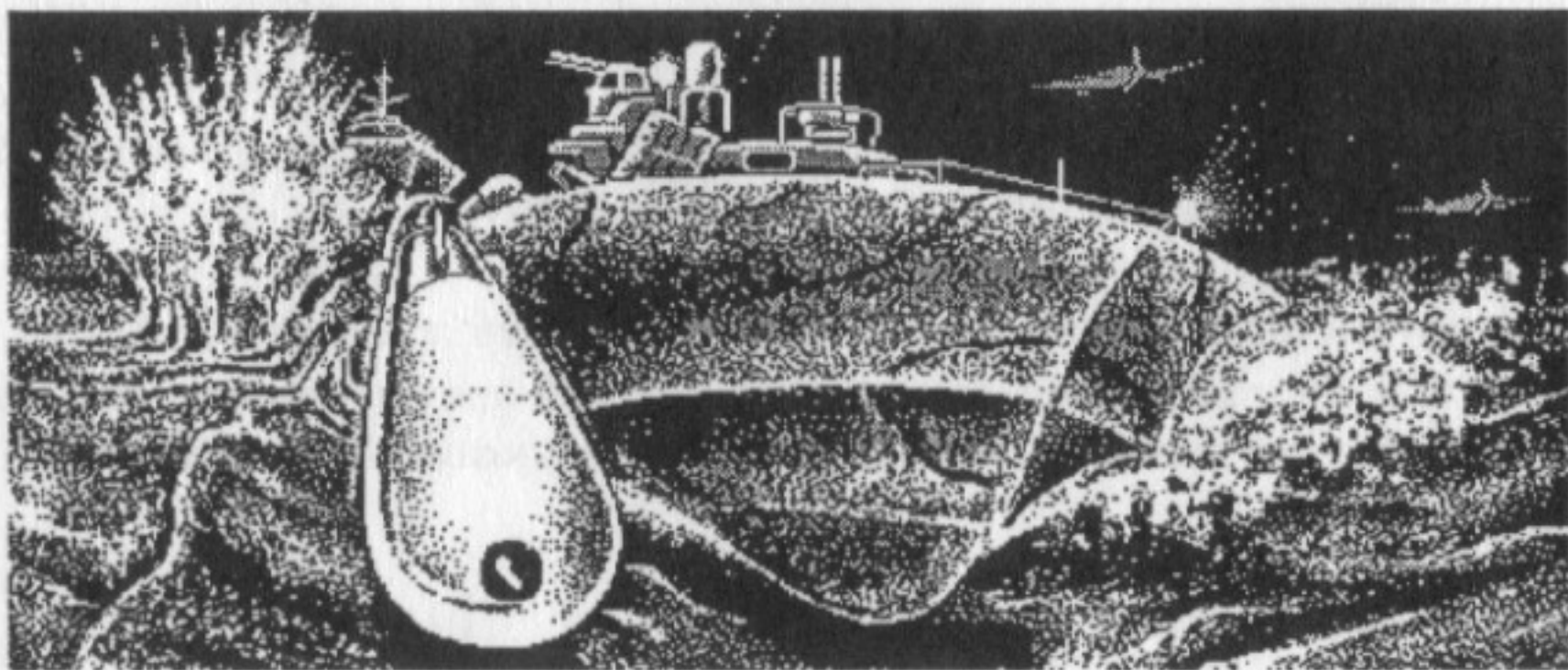
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General Quarters! Man Your Battle Stations!

Take the helm of one of the most daring vessels of the World War II era, the PT Boat, as you skipper the maneuverable and versatile PT-109 and perform missions in the Pacific Ocean and Mediterranean Sea. Patrol Torpedo Boats, affectionately known as "mosquito boats," were well known for their ability to sneak into shallow coastal waters unnoticed, do their damage, and then speed off before the enemy could react. Originally designed as an effective way to protect coastal waters from enemy incursions, the PT Boats evolved into versatile fighting machines that could range over large areas. You'll get a chance to learn the history of your craft and fighting techniques from PT Boat Skipper Nick McGowsky before taking off on your own.

You can see it now . . . Patrolling a dark coastline with engines muffled, your crew detects a convoy of enemy ships moving troops and supplies to an island stronghold. You know that you've only got one boat, but it's the PT-109 and those freighters have to be stopped from delivering their supplies! Heading into the heart of the convoy at 40 knots, all the things McGowsky said are coming back to you now. Launching a pair of torpedoes into the freighters' path, you can sense that the destroyers know you're around. The flash of explosions signals a direct hit, but the excitement is short-lived! Just as quickly, the enemy destroyers and airplanes begin to pummel the area around you with their shells. Then it's "Hard right rudder!" and the PT-109 turns on a dime! Now you must lay a smoke screen and draw upon all your resources and knowledge to make it through this one. McGowsky would be proud. You've taken the battle to the enemy. Now, if you can just survive the counterattack . . .



About This Manual

Use this manual for general program operating instructions. The accompanying manual, *PT Boat Tactics with Nick McGowsky* contains historical and tactical information.

Hardware Requirements

You must have a Macintosh 512, 512E, Plus, SE, or II with 512K bytes of RAM. The disk in this package is an 800K disk. If you have access to a Macintosh with an 800K drive, you can make your own 400K disks. See the procedure in the Appendix on page 38.

Set Up and Loading Information

We assume that you are familiar with basic terms and operations of the Macintosh. These include pointing and selecting with the mouse, and choosing commands from pull down menus. If this is the first program you have run on your Macintosh, refer to the Macintosh Owner's Manual to become familiar with how to operate your computer.

Making a Backup Copy of the PT-109 Disk

You should immediately make a backup copy of the PT-109 disk, and use the backup for everyday operation. Follow the normal Macintosh conventions for copying disks, but make sure your original disk is locked (that is, the write-protect tab has been set) before you make the backup, so you don't accidentally erase the original PT-109 disk.

Use the backup copy when playing the game, and make sure *it is not* write protected. (Data is written to the disk during play.)

If you want to run PT-109 from a hard drive, create a folder called "PT-109," and copy all the files from the PT-109 disk (except System) into that folder. **ALL THE PROGRAM FILES MUST RESIDE IN A SINGLE FOLDER** (except the System file).



Loading the Program

800K Drive or Hard Disk

PT-109 will auto-boot if you power up (or "restart") with your backup disk in the internal drive. Or, if you boot from your hard disk or a disk with a Finder, you may load PT-109 from the Finder by double-clicking the PT109 icon (or a saved-game icon).

One 400K Drive

Put the first disk into the drive, and restart your computer. The game will begin loading. Watch closely, and you will be instructed when to switch disks. (Remember: Use your backup copies, and make sure they are *not* write-protected.)

Two 400K Drives

Put the first disk into the internal drive, and restart your computer. The game will begin loading. If you haven't done so already, place the second disk (named PT2) into the other drive when prompted. (Remember: Use your backup copies, and make sure they are *not* write-protected. The second disk must be named **PT2**. *Don't rename the disk, or the program won't load.*)

All Systems

The program is large and takes a while to load. A title screen will appear while the program is loading. Once it's finished, you'll be standing in the cockpit of PT-109, ready for action.

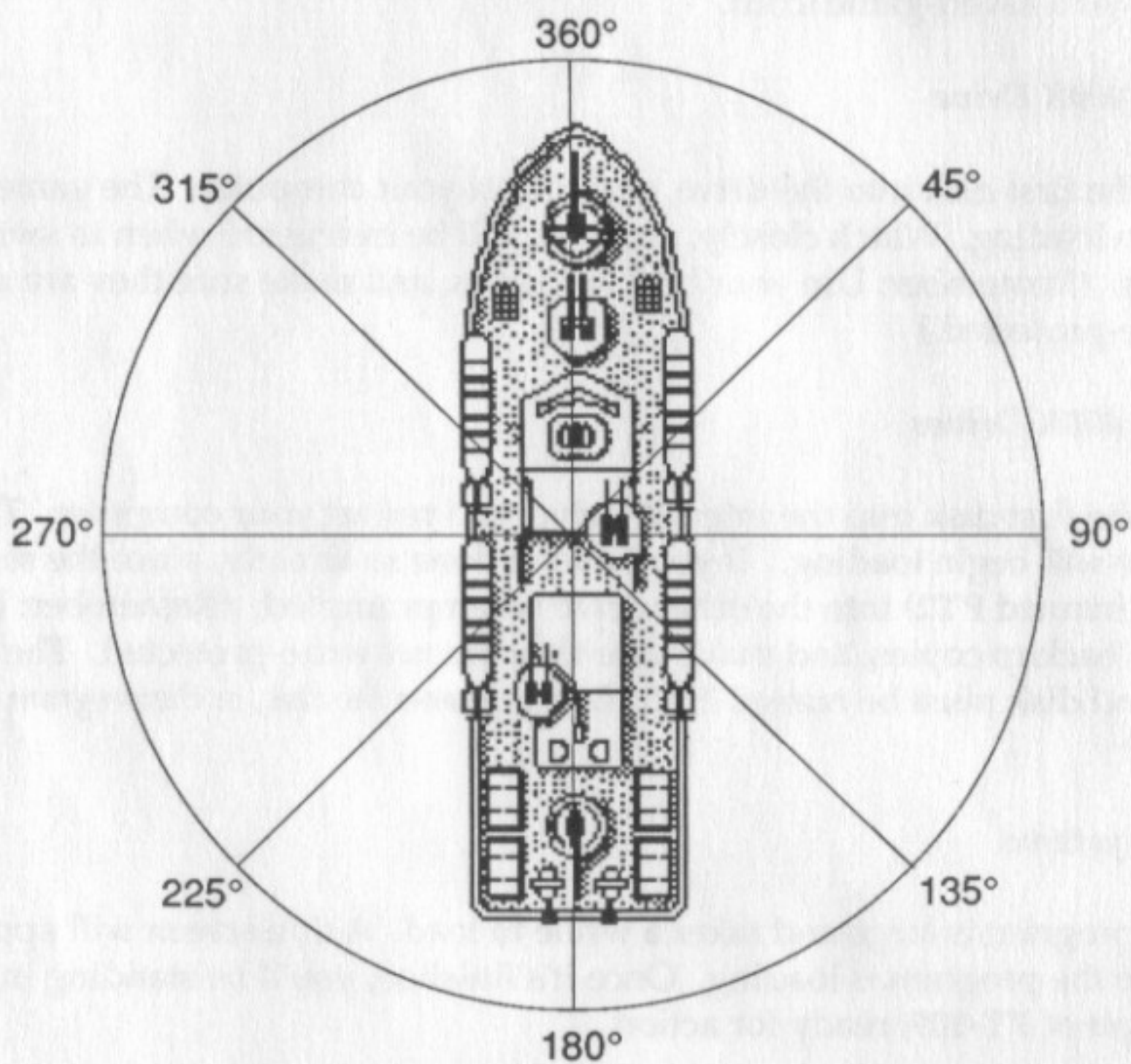
Playing the Game

You have the opportunity to take PT-109 out right away, since the program comes up in "Practice Tactics" mode. Even so, read the next few pages to familiarize yourself with the controls before you go after the enemy. We'll give you more detailed information about PT-109 later in the manual.



Cockpit View

The cockpit of an 80-foot Elco PT Boat (like PT-109) is located almost exactly in the center of the boat. It isn't enclosed, thus allowing the skipper an unobstructed 360° view. We've broken this view down into four 90° segments: front (bow), left (port), rear (aft), and right (starboard).



What you see onscreen (and on the next page) is the front 90° view.





Front Cockpit View

There are enemy ships on the horizon. Though you may not be able to tell visually at this distance, there are four. Other than to say that these are your targets, we won't say any more about the enemy ships at this point.

Located in the center of the bow is the *desired heading control*. The number in the rectangle (240, in the illustration above) represents the current absolute heading of the boat in degrees.

You may use the heading control to steer the boat. Click on the control with the mouse pointer, and drag it to the left or right until it's located on the horizon at the spot toward which you want the boat to go. Release the mouse button, and the boat will change course (assuming, of course, that the throttle is open). You can drag the control to the edge of the screen, where the number will continue to increase (or decrease). When the desired heading is reached, release the button.

You'll notice that when you click on the heading control, a "helper" needle appears on the Tactical Radar Screen at the lower right corner. This gives you additional help for choosing a desired heading.

Directly under the heading control is the *target rail*. Each target is represented by a small square with a number inside. The position of each square on the target rail corresponds to the horizontal position of the target on the horizon. (If the target is in visual range, you should also be able to see it on the horizon.)

The target squares also indicate the relative distance of the targets from your boat. Squares that represent targets closer to the boat will cover the



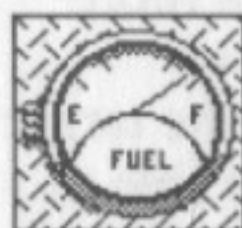
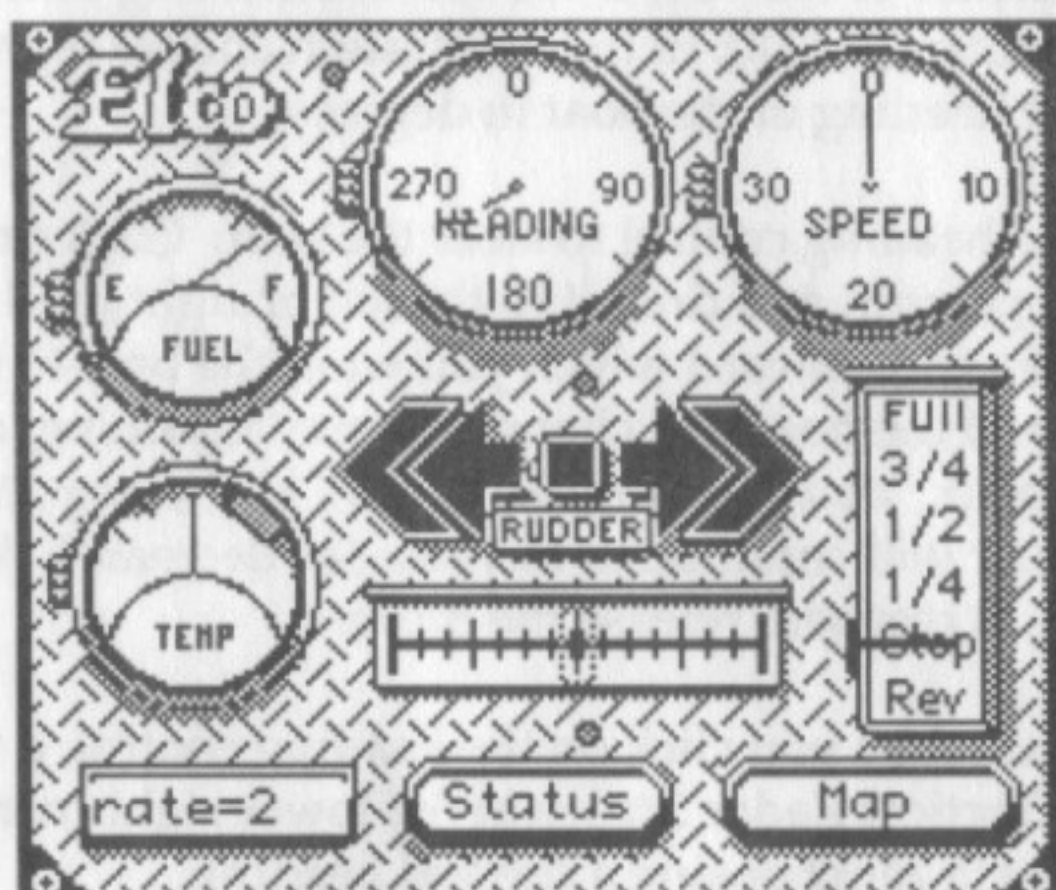
squares representing targets that are farther away, if the closer ship passes in front of another vessel.

There are four ships in the enemy convoy. This is why there are four squares in the target rail, numbered 1 through 4. *Note: The numbers inside the squares on the target rail do not indicate the type of ship. The program assigns the numbers so you can keep track of each ship.*

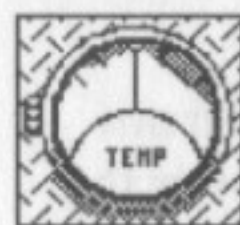
If you wish to identify what type of ships are present, press the ? (question mark) key. (Your crew will display the ship types in the upper right corner of the screen. This time, the numbers *do* mean something. In the practice mode we're describing, 1 = cruiser; 2 = escort; 3 = destroyer; and 4 = submarine.)

Now, let's take a look at the rest of PT-109's controls.

Main Control Panel



Fuel Gauge. A full tank contains 3,000 gallons of 100-octane aviation gasoline. At a cruising speed of 35 knots, PT-109 has a range of about 500 nautical miles.



Engine Temperature Gauge. If the needle is in the gray area, the engines are overheating and are probably being damaged.

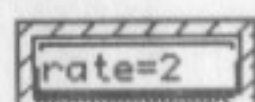




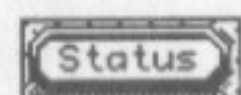
Compass. This is the absolute compass heading toward which the front of the boat is aimed.



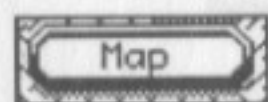
Speedometer. Maximum speed without torpedoes is about 40 knots. Each torpedo carried on the boat reduces speed by 1 knot.



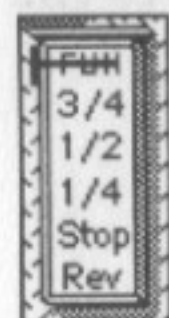
Rate of Play Indicator. Click on the left side of the button to reduce the rate of play, and on the right side to increase it. As the rate increases (all the way up to "8"), elements of the game occur in a quicker fashion. For example, ships (including yours) change position much faster during a high rate of play (even faster than "real-time"). Experiment to find the speed you prefer. The default setting of "2" is "real-time".



PT Boat Status. Clicking this button displays a screen showing the status of PT-109's essential systems. Your PT Boat can be damaged in a variety of ways: by taking fire from enemy ships and planes, being rammed, hitting mines, and running aground. Your crew will repair damage, if it's possible to do so. The length of time required depends on how severe the hit was. (If the damage cannot be repaired by the crew, the word *PORT* appears on the status screen. If you make it back to your base, the damage will be fixed there.) An estimated time for repair is given for damaged systems. (By the way, the game pauses while the status screen is displayed.)



Map Selector. Clicking on this button toggles between the Cockpit View and the Map View. We'll talk about the Map View later.



Throttle. Click on the desired throttle setting to control the boat's speed. You may also control the throttle from the keyboard.



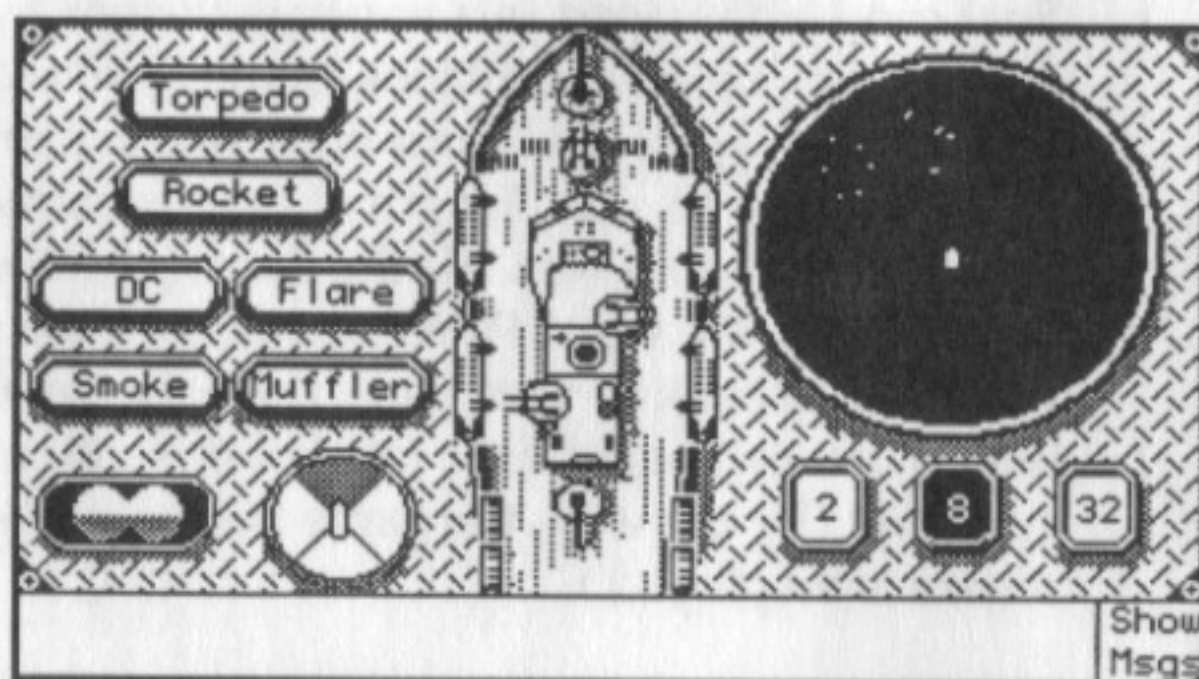


Rudder Controls. On top is the rudder control. Beneath it is a rudder status gauge which displays the current rudder position. Clicking on the smaller inside arrows increments the rudder one mark in the direction the arrow points. Clicking on the larger outside arrows increments the rudder in multiple units. The greater the deflection from center, the tighter the turning radius is. Keep an eye on your compass, the tactical radar display, and any enemy vessels so you'll know when to center the rudder to go straight. *This is accomplished by clicking on the center square.*

For convenience, you may also click on the rudder status gauge to control the rudder.

Note: All the controls on these pages may be operated from the keyboard, as well as by using the mouse. See pages 36-37 for all the keyboard commands.

Tactical Control Panel



While the Main Control Panel allows you to control the movement of PT-109, the Tactical Control Panel gives you tools for engaging the enemy.

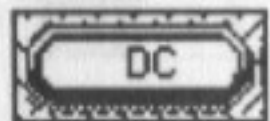




Torpedo. Click this button to fire a torpedo. The torpedo will continue in a straight line at the same heading PT-109 was going in when fired. Therefore, you should aim the boat toward the target at an angle that causes the torpedo to collide (and hopefully detonate).



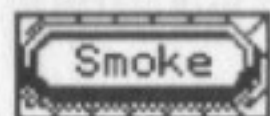
Rocket. Rockets travel at a very high rate of speed and with good accuracy. Aim the boat at the target and fire when within a range of about two nautical miles.



DC (Depth Charges). Carefully maneuver PT-109 so that the stern is directly over a submerged submarine and click the button once for every depth charge you wish to roll. Depth charges can also be used to damage closely pursuing destroyers. (*Don't roll depth charges while you're stopped. They can damage your boat!*)



Flare. Each flare will illuminate the night sky for two "game minutes." (Be careful. They also inform the enemy of your presence and whereabouts.)



Smoke. This button turns the smoke generator on and off. (The smoke is made by combining titanium tetrachloride and water.) A smoke screen is helpful when you're fleeing from enemy destroyers or trying to avoid gunfire. The smoke does eventually dissipate. You have enough chemical to generate smoke for 470 seconds.



Muffler. When ambushing the enemy, stealth counts more than speed. The engine exhaust muffler cuts the engines' power by about 50% and cuts the sound in half.



Binoculars. This control toggles between the binocular view and the cockpit view.

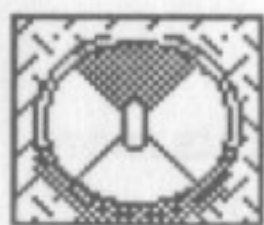


For a close-up view of the enemy, click on the binoculars. (Note: These are standard 7-power binoculars, meaning that what you see is about twice normal size.) You will see something like this:



The **View Control** is located in the same position that the **Desired Heading Control** is in the Cockpit View. The number in the view control represents the compass bearing toward which you're looking. It is *not* necessarily the same as the boat's heading. You may drag the view control box to the left or right to change the view. If you want the boat to head in the direction you're looking, click on the *Match Heading to View* button. To look where the boat is heading, click on the *Match View to Heading* button.

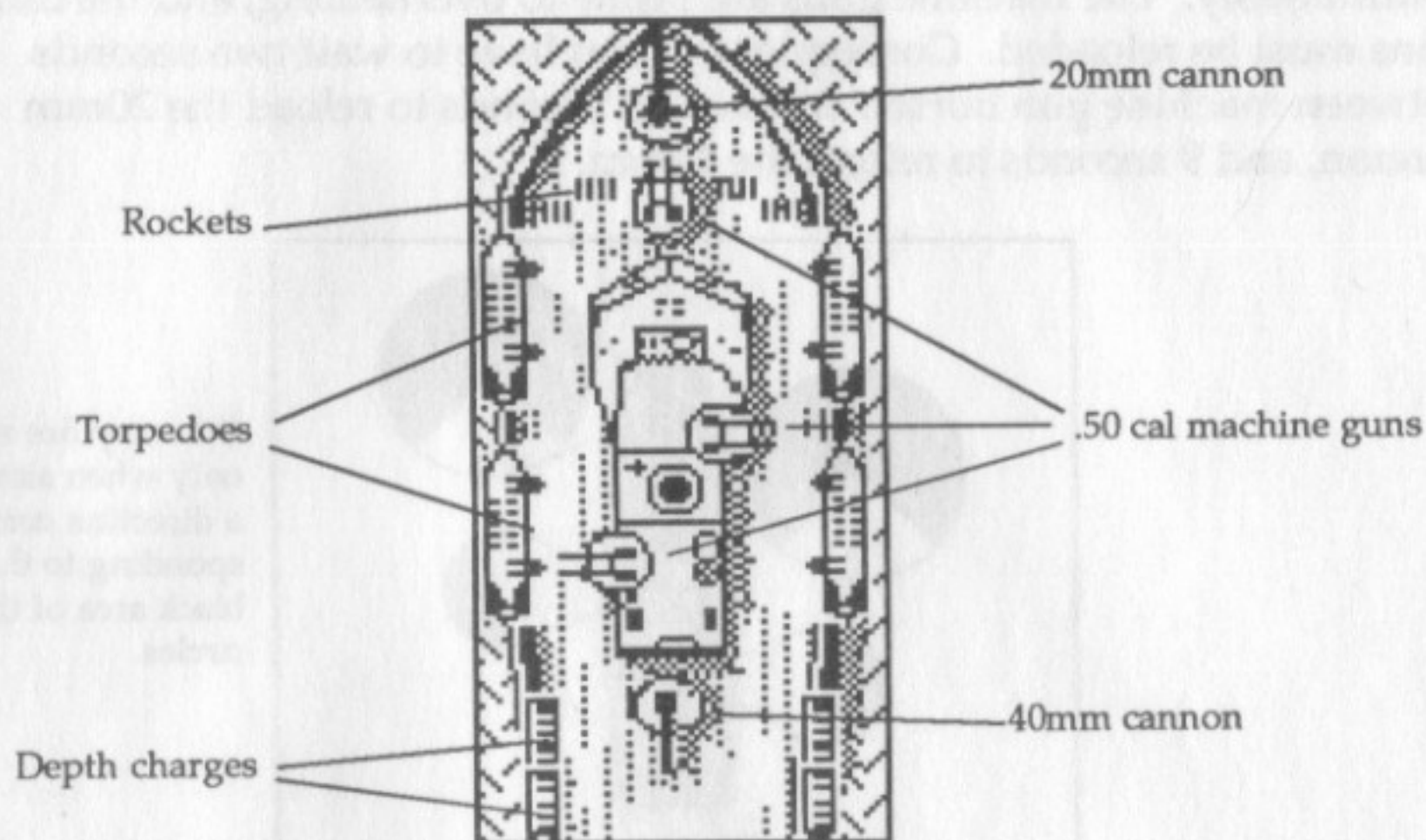
You can rotate the binoculars in 90° increments by pressing the **Spacebar**. However, the *view selector* doesn't function here for rotating the view.



View Selector. Click in the quadrant that represents the view of the boat you want to see. You can also use the **Spacebar** to rotate views to the right. (Note: The view selector doesn't work when you're using the binoculars.)



Other Weapon Controls



In addition to using the buttons to fire rockets, torpedoes, or depth charges, you can also click on the weapons in this panel.

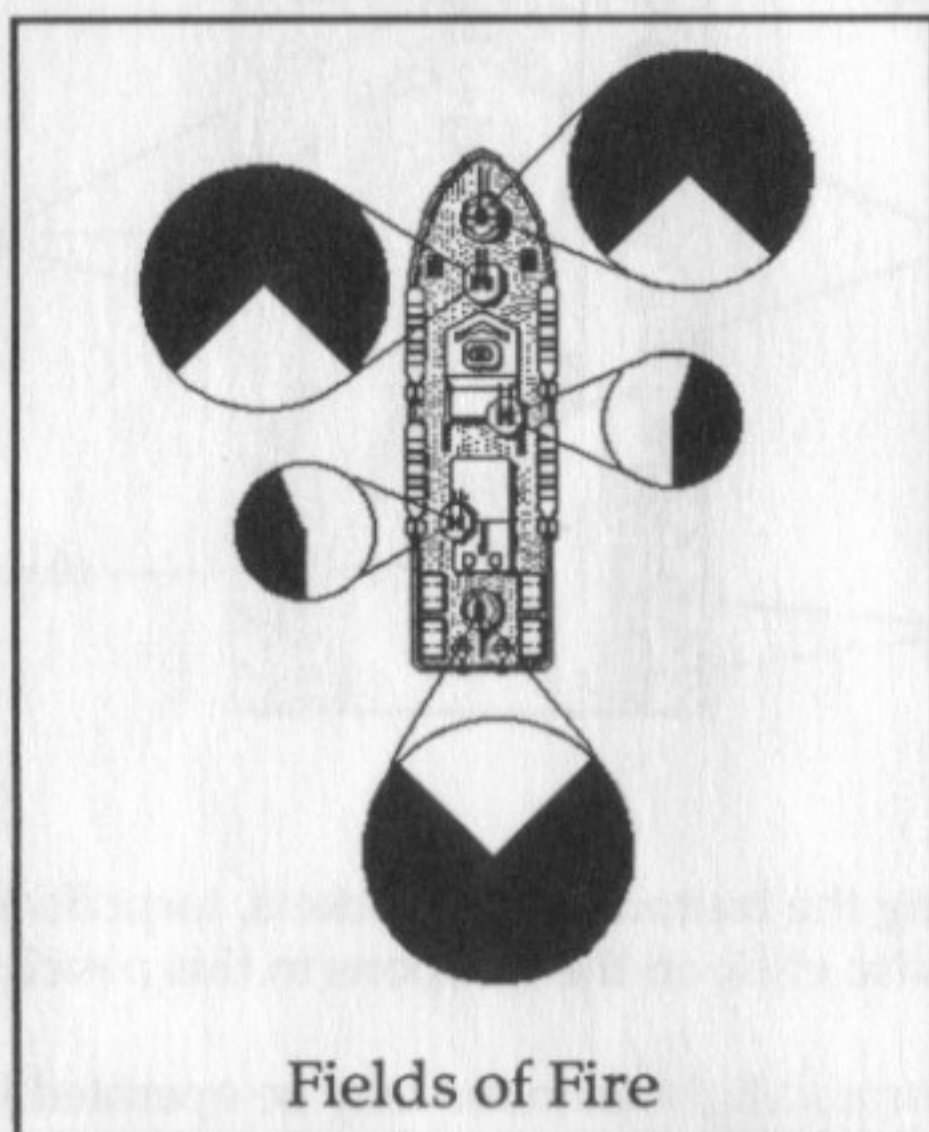
Your machine guns and light cannons may be operated in one of two modes: **automatic** or **manual**. The automatic mode allows fire from all the guns to be divided among multiple targets. When an enemy vessel is within range of your small arms, that ship's number in the target rail is **boldfaced**. To select the target for automatic firing, click on the icon in the target rail, or type the corresponding number on the keyboard. When the target icon is highlighted, the target will be engaged automatically by your "crew" as long as you're in range.

(Note: Range for the .50 caliber machine guns is about 1300 yards; for the 20mm cannon, 1700 yards; and the 40mm cannon, 2100 yards.)

To fire the guns in manual mode, click on the symbol of the gun. When selected, the gun will flash, and the cursor changes into crosshairs when it is in the view area of the screen. Place the crosshairs over the target, and



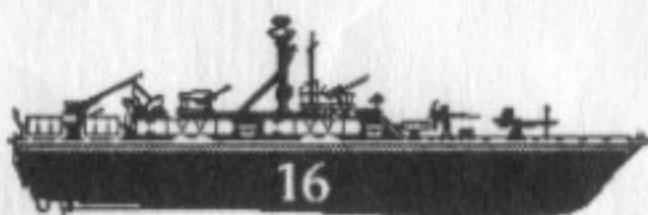
press the mouse button to fire the gun. (Note: All the guns have protective railings so that you cannot shoot your own boat. (See the diagram below for each gun's field of fire.) If you try to fire a gun outside its field of fire, you get the message: "Gun blocked, Skipper.") The guns cannot be fired continuously. The machine guns are prone to overheating, and the cannons must be reloaded. Consequently, you have to wait two seconds between machine gun bursts. It takes six seconds to reload the 20mm cannon, and 9 seconds to reload the 40mm.

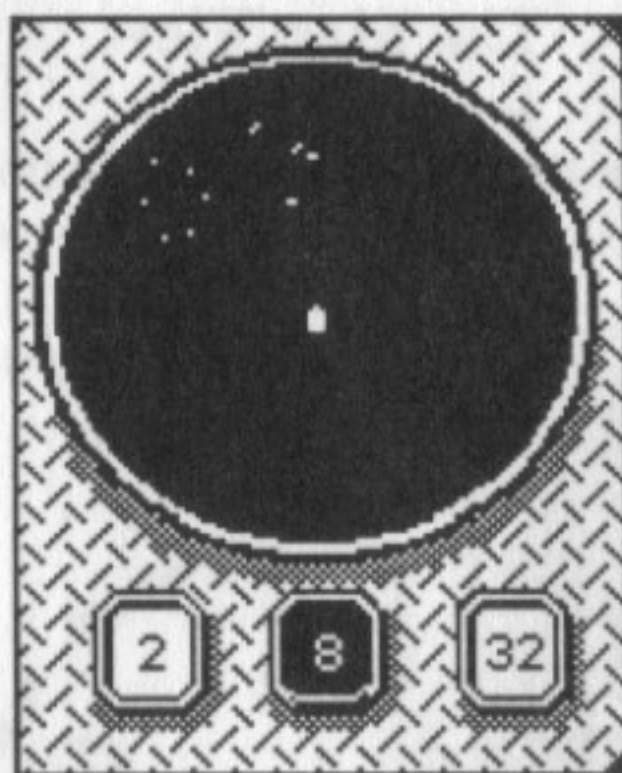


You may fire a gun only when aimed in a direction corresponding to the black area of the circles.

Manual mode overrides all other automatic orders and allows you to focus fire on one target. Because you have only a limited amount of firepower, concentrating on one target often produces the most effective result. Dividing your fire among multiple targets may prevent you from damaging any of the targets enough to take them out of action.

Note: All the ship's armament (except the machine guns and cannons) may be fired or activated from the keyboard. Once again, see pages 36-37 for all the keyboard commands.





Tactical Radar Display. You have three different radar ranges: 2 miles, 8 miles, and 32 miles in diameter. This is a relative display. Ships in the same direction as the boat heading appear at the top of the display. Ships behind you are on the bottom.

(Note: When you click on the desired heading control, a "helper" needle appears on the radar screen, showing the heading.)

General Quarters! Man Your Battle Stations!

Show
Msgs

Show Messages. Extending across the bottom of the tactical panel is the "Show Messages" display. Here you can read communications from the crew regarding the status of your boat and weapons, and the progress of the patrol. Click on the *Show Msgs* square to review the last fifteen messages. The game pauses while you do this. Here's an example of what you might see.

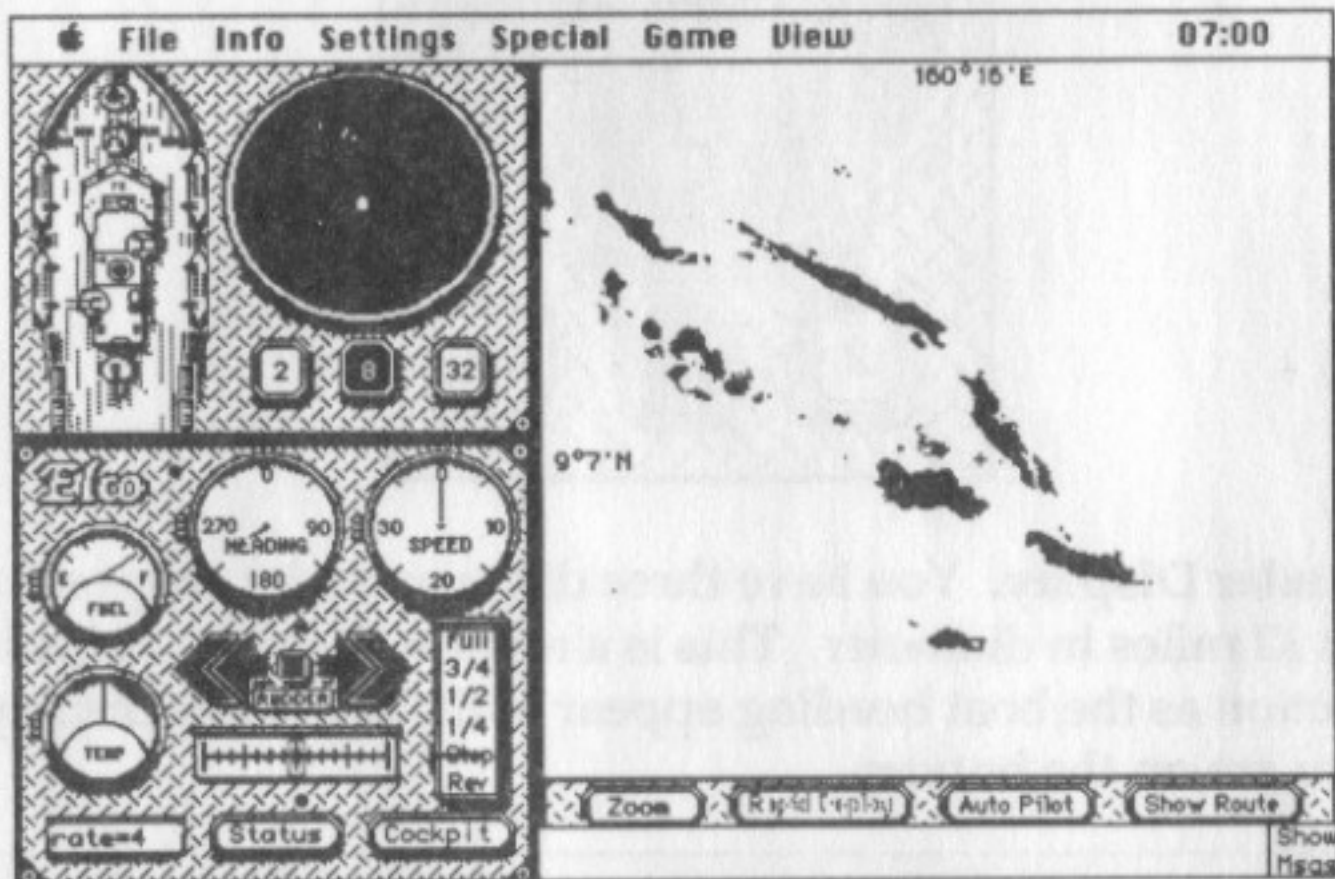
Torpedo Four hit, Skipper
Sank that Destroyer, Skipper
Securing from General Quarters, Skipper
General Quarters! Man Your Battle Stations!
Torpedo Three has stopped running, Skipper
The other PT Boat just fired a
torpedo, Skipper
Torpedo Three hit, Skipper
Sank that Troop Transport, Skipper
Securing from General Quarters, Skipper
Engaging Auto Pilot, Skipper
Engaging Auto Pilot, Skipper
Engaging Auto Pilot, Skipper
Engaging Auto Pilot, Skipper
Jumping to our base
press any key or click to continue...

Show
Msgs



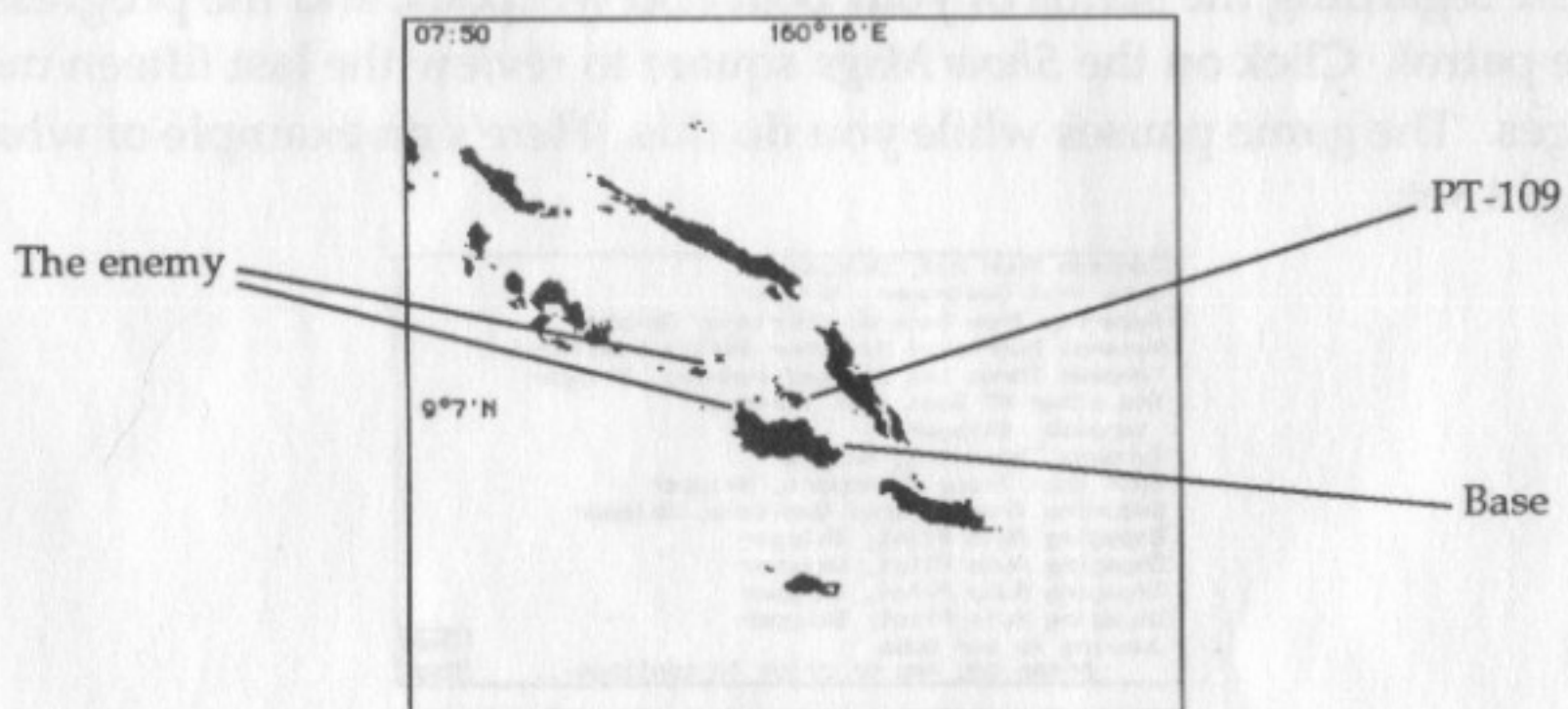
The Map View

At this time, take a look at the Map View. Click on the "Map" button on the Main Control Panel. The display will change as the map appears.



You will notice that some elements of this view are the same as the Cockpit View: the Main Control Panel, the Tactical Radar Display, and the Ship's Weapons Display. These work exactly the same as their counterparts on the Cockpit View, except that you *cannot* fire the weapons. (Also, the *Rate of Play* increases by a factor of two when you're in the Map View.)

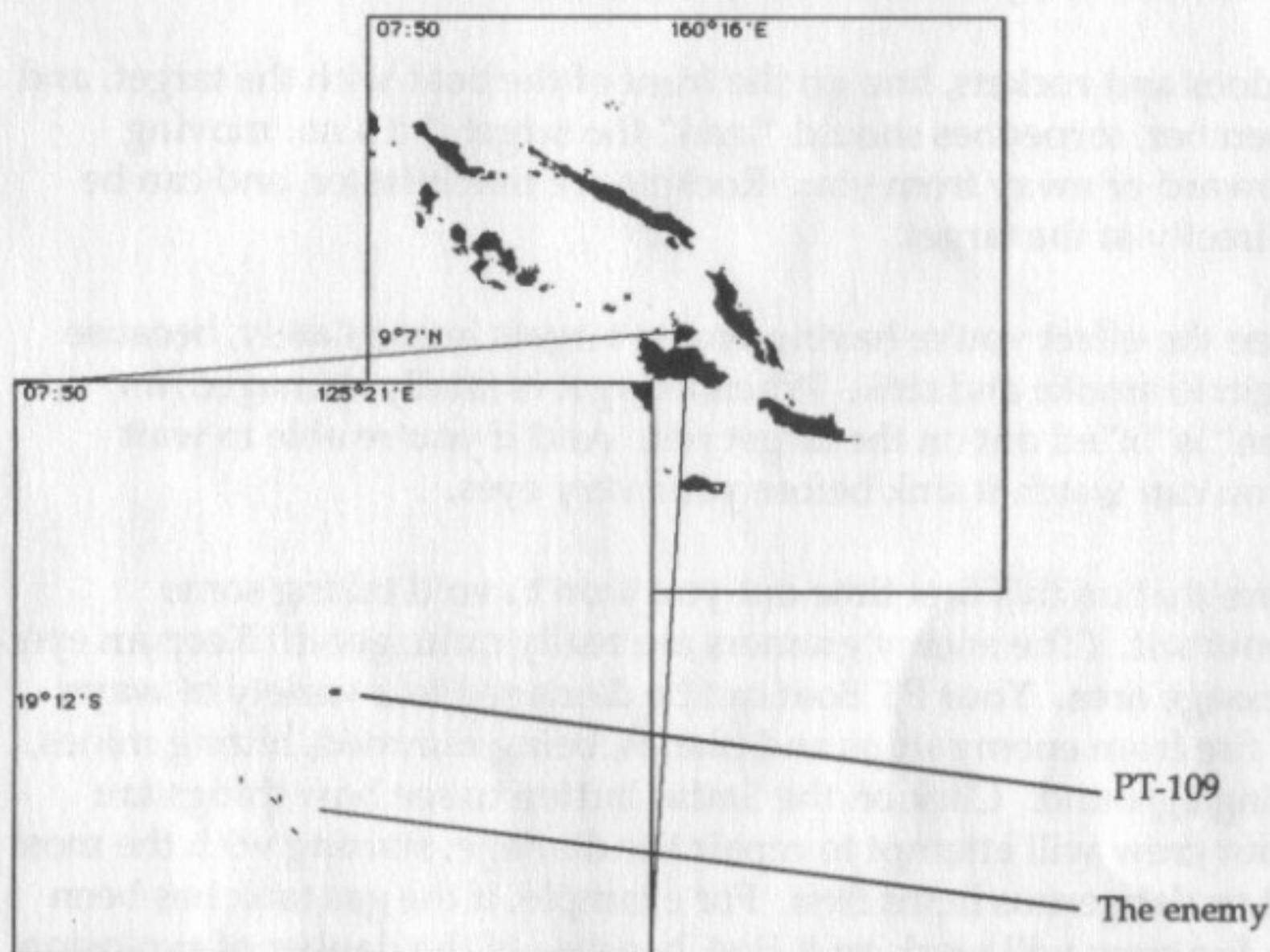
The most obvious difference, of course, is the map. You have a choice of two differently sized maps: one about 600 miles across, and another 30 miles in diameter. Here's the 600 mile map from the Practice Tactics mode.



We have marked the position of **PT-109** and its home base on the map. **PT-109** is always represented on the 600-mile map as a cross (+). Bases (there can be more than one) are represented as dotted-line circles. Any enemy convoys (or planes) are represented by x's.

(Note: These are easier to see on the computer screen, because they blink on and off. If you have trouble finding them, you can type **Option-B** to momentarily highlight the base, **Option-X** to highlight the enemy, and **Option-P** to highlight **PT-109**.)

To "zoom in" on the 30-mile view, click on the *Zoom Button* in the lower left corner of the map. (Note that the button label changes to *UnZoom*. Click on it again to return to the 600-mile view.) The view you are presented with is the 30-mile square portion from the 600-mile map containing **PT-109** at its center.



As you can see, **PT-109** is represented by a small boat shape on the 30-mile map. Each ship in the enemy convoy is now shown individually, lined up in their proper orientation.

Click on the *Cockpit button* to return to the Cockpit View.



Your Orders, Skipper!

Now that you're familiar with most of PT-109's controls, it's time to go after the enemy. Here's what you do.

■ **Increase the throttle.** Click on the *throttle control* or use the keyboard.

■ **Steer your boat toward the targets.** Drag the *desired heading control*; click on the *rudder control*; or use the keyboard control equivalents. You may also adjust the heading from the binocular view.

■ **Fire away!** When the target is within range of small armsfire, its number in the target rail is **boldfaced**. Click on the target icon, or type its number on the keyboard to tell your crew to fire on the ship. Or if you wish, you can manually fire the machine guns or cannons.

For torpedoes and rockets, line up the front of the boat with the target, and fire. Remember, torpedoes should "lead" the target if it's not moving directly toward or away from you. Rockets are much faster, and can be pointed directly at the target.

You can see the effect you're having on the targets immediately, because they'll begin to smoke and sink. When a target is fatally damaged, its "target icon" is "x"ed out on the target rail. And if you're able to wait around, you can watch it sink before your very eyes.

Chances are that on this first time out you won't avoid taking some damage yourself. (The enemy gunners are really quite good!) Keep an eye on the message area. Your PT Boat can be damaged in a variety of ways: by taking fire from enemy ships and planes, being rammed, hitting mines, and running aground. Click on the *Status* button to see how things are going. Your crew will attempt to repair the damage, starting with the most important or dangerous items first. For example, if the gas tank has been damaged, the crew will work on it first, because of the danger of explosion. Next to be repaired are the rudder and propellers, followed by the engine and guns. The last items to be repaired are the radio and tactical radar. *Repair needs are cumulative. In other words, the length of time required to complete repairs is the sum of the time for all individual items.*



Note: Because the propellers and rudder are located on the outside of the boat, they cannot be repaired unless you stop the boat. The crew will warn you that repairs are needed below deck.

If you should succeed in sinking all four enemy ships, you might want to try your luck blowing up mines with small arms fire. (Mines appear on your *tactical radar display* as flashing blips.) *Keep an eye out for airplanes, as they will sometimes appear from out of nowhere!* (McGowsky will teach you about fighting planes in the Tactics Manual.)

Level of Play

"Practice Tactics" always comes at the lowest level of play, which is "1." There are four levels of play, each one increasingly more realistic. For example, at the lower levels your torpedoes run farther, hit easier, and explode more often. You can get closer to the enemy before they see you, and their guns do less damage.

We recommend that you play at the lowest level until you're familiar with your boat.

You can "practice tactics" at any level. Just select *Practice Tactics* from the File pulldown menu. A dialog box appears, from which you can choose the level of play. (Note: *There is a "Sitting Ducks" selection, too. Your boat can't be damaged if you make this selection, but it's available only for practice.*)

See the chart on page 34 for how the level of play affects your boat and the enemy in other ways.

The Patrols

PT stands for "Patrol/Torpedo." You've already experienced the *torpedo* part. Now, let's go on patrol.

In practice during World War II, PT Boat squadrons were positioned in areas near the enemy. They patrolled coastal waters looking for enemy activity, and did what damage they could. Unlike submarine patrols, which would last for several weeks, PT Boat patrols were usually very short. The boats would typically leave base at dusk and return before dawn.



PT Boats were called upon to perform a variety of tasks: to seek and destroy enemy ships, lend support for amphibious landings, rescue downed fliers and shipwrecked sailors, deliver commando teams to enemy shores, and perform any other kind of operation where a speedy boat with a shallow draft was called for.

When the United States entered World War II, there were only a few PT Boats in the Navy. However, by the end of the war, over 600 were built (although not all of them saw combat). Also, during the course of the war, the amount of armament carried aboard PT Boats continually increased. At the beginning, PT Boats carried four Mark VIII torpedoes and two dual-mount .50 caliber machine guns. At the end of the war, they carried four Mark XIII torpedoes, 20mm and 40mm cannons, a smoke generator, several dual-mount .50 caliber machine guns and 16 rockets. This made PT Boats the most heavily armed vessels (in proportion to their displacement) in the United States Navy. Mosquito boats carried depth charges for a time, but because they didn't have sonar equipment, their effectiveness against submarines was negligible. (In PT-109, however, we simulate sonar. A submerged submarine appears on the *tactical radar display* as a larger-than-usual boat-shaped symbol.)

As we stated, PT Boats spent a healthy percentage of time going on patrols. To lend historical accuracy to our simulation, we've taken 45 representative PT Boat patrols from WWII and included them in the program. There are ten patrols from the early part of the war, covering the period from January to April, 1942. We call this the *Loss of the Philippines*. Then, covering the timespan from October, 1942 through August, 1943 we have ten patrols against the Tokyo Express in the Solomon Islands. (Note: The actual PT-109, skippered by then Lieutenant (jg) John F. Kennedy, was active and lost during this time period.) After the U.S. recaptured Guadalcanal, PT Boat action moved North to New Guinea, where they were used extensively against enemy supply barges. There are ten patrols from this era, which we call *New Guinea - Barge Busting*, covering August, 1943 through April, 1944. General Douglas MacArthur returned to the Philippines in October, 1944 the way he left: on a PT Boat. To round out our War in the Pacific scenario, we've included five patrols, entitled *Return to the Philippines*, that took place between December, 1944 and February, 1945.

PT Boats were also used in Europe, mostly in the Mediterranean Sea. The ten patrols we've included from this theater of action are called *Mediterranean Dogfighting* (October, 1943 through August, 1944).



Individual Patrols

There are two ways to perform the patrols in PT-109: individually, or as part of a whole campaign. First, we'll describe an individual patrol.

At the beginning of a patrol, you'll be given orders outlining a patrol route to follow. You may also get special orders requiring you to drop off a commando team or keep an eye out for downed fliers. For example, here's some sample patrol orders:

PATROL ORDERS

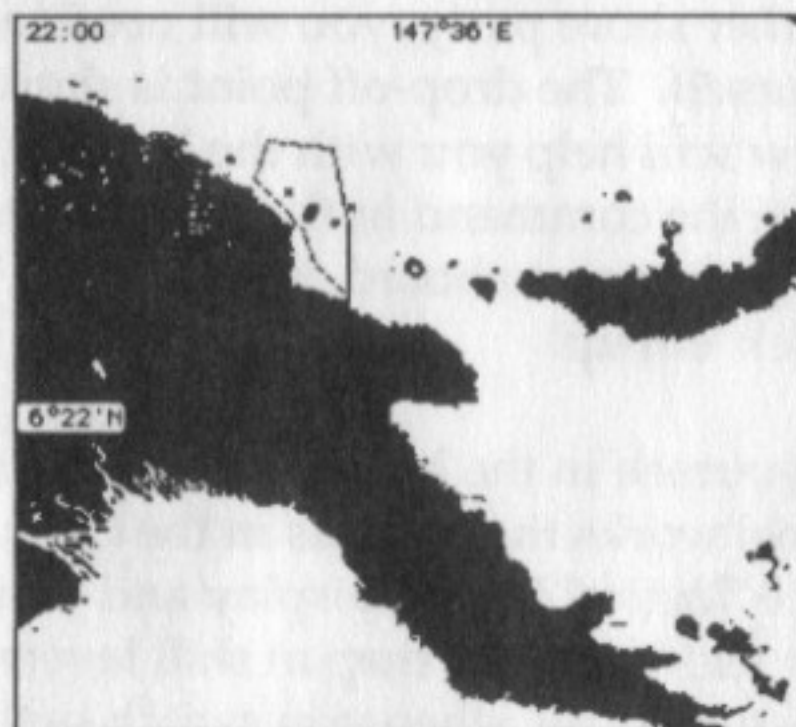
Start from your base at Sisiman Bay on February 10, 1942 at 17:00 hours. Follow the route shown on your map using the indicated speeds for each leg. Travel legs#1-2 at 12 knots, travel legs#3-4 at 8 knots, travel leg#5 at 12 knots, travel legs#6-7 at 16 knots, travel legs#8-10 at 20 knots, travel legs#11-13 at 16 knots, then return to your base at Sisiman Bay (18°47'N, 120°55'E).

Special Instructions:

On leg#2 you should pick up a commando team.

After you click the mouse button (or press any key), you're taken to the Cockpit View. Click on the Map button to get to the Map View.

To see the route described in your patrol orders, click on the Show Route button.



600-Mile Map with Route



Your PT-109 is equipped with an *Auto Pilot*. (This is the equivalent of letting your exec take the helm.) When you click on the Auto Pilot button, the Auto Pilot takes over operation of the rudder and throttle, and begins tracing the assigned patrol route. As each leg of the itinerary is completed, a message to that effect appears in the message area, and the line representing that portion of the route is removed from the map.

You will disengage the Auto Pilot and leave the assigned route often so that you can engage the enemy. If you're lucky enough to destroy all the vessels in the enemy convoy, you'll want to continue with the assigned patrol. If you engage the Auto Pilot, it will steer you by the most direct route *to the end of the route leg you were on most recently*.

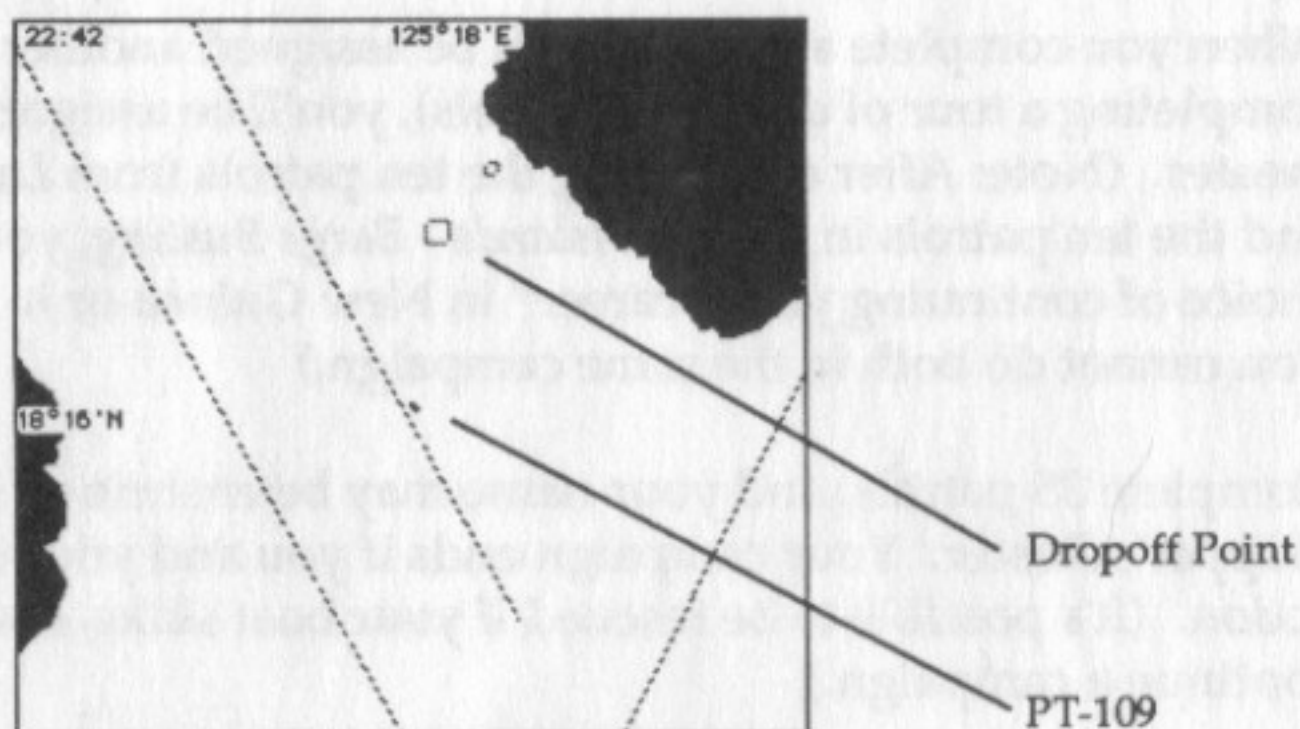
If there is land between your current position and the end point of the leg, the Auto Pilot will try to steer you across the land. In a case like this, you will need to steer the boat yourself to a point where it's safe to engage the Auto Pilot.

Most of the time spent in real PT Boat patrols was expended in "getting there and waiting." To speed up the action, *you* can click on the **Rapid Deploy** button, which causes an eight-fold increase in the game's Rate of Play. You can remain in this mode until PT-109 comes near the enemy, or you click it off. (You cannot be in **Rapid Deploy** once "General Quarters! Man Your Battle Stations!" has been announced.)

If your patrol orders contain special instructions to drop off and pick up a commando team or other shore party, you will need to navigate the boat to the drop-off point yourself. The drop-off point is shown on the map as a small circle. Your crew will help you with the heading and tell you when you're in position. Use the command in the **Special Menu** to dispatch your passengers. To bring passengers aboard, just pilot PT-109 near the raft, and your crew will pick 'em up!

To navigate the boat yourself in the Map Mode, turn off the Auto Pilot. The Main Control Panel works the same as in the Cockpit View, but you will have to rely on the Tactical Radar Display and your map. (Note: Enemy vessels are not shown on the map at skill levels 3 and 4.) Auto Pilot and Rapid Deploy are turned off when you switch to the Cockpit View. The throttle settings and heading remain the same.





In general, a patrol *may* be conducted like this:

1. After receiving your orders, switch to the Map View and engage the Auto Pilot (and Rapid Deploy if you want to do so).
2. Stay in the Map View until you come near the enemy. ("General Quarters! Man Your Battle Stations!" will be announced.)
3. Switch to the Cockpit View and engage the enemy. Good luck!
4. When you've dispatched the enemy, return to the Map View and engage the Auto Pilot again. It will return you to your assigned patrol route, and you can continue on from there.
5. When you eventually return to base, your performance will be reviewed and evaluated.

Note: You are *not* eligible for the "Top Skippers" roster unless you play "New Campaign" rather than "Single Patrol."

A Campaign

A campaign is a series of individual patrols assigned one at a time in chronological order. You will first be given general orders assigning you to a general area. Then you'll be issued "orders of the day" for individual patrols.



When you complete a patrol, you'll be assigned another. After successfully completing a tour of duty (ten patrols), you'll be assigned to the next theater. (Note: After completing the ten patrols from *Loss of the Philippines* and the ten patrols in *Solomon Islands - Barge Busting*, you'll be given a choice of continuing your "career" in New Guinea or in the Mediterranean. You cannot do both in the same campaign.)

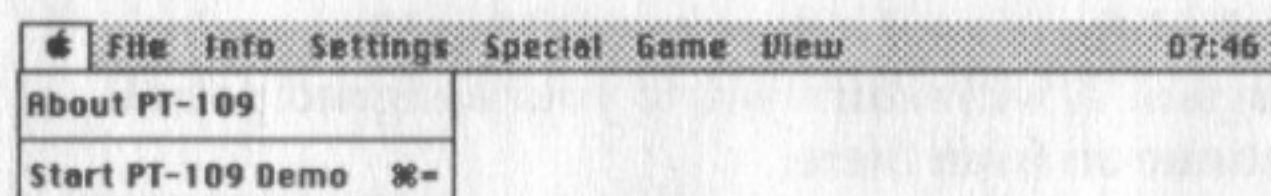
Complete 35 patrols, and your name may be enshrined in the Top Skipper's Roster. Your campaign ends if you and your crew are killed in action. (It's possible to be rescued if your boat sinks, enabling you to continue a campaign.)

After you've completed the "Loss of the Philippines" campaign, you may still be eligible for the Top Skipper's Roster even if you perish.

THE MENUS

The menu bar is available at all times and contains typical Macintosh pull-down menus.

APPLE MENU



About PT-109

This selection displays the program credits.

Start PT-109 Demo ⌘=

The program takes over control of the boat, and you can see the effect of operating various controls. Clicking the mouse or pressing any key exits the demonstration. You can then take over operation of PT-109 yourself.



FILE MENU

File	Info	Settings	Special	Game	View	07:46
New Campaign	⌘C					
New Single Patrol	⌘N					
Practice Tactics						
Load Game						
Save Game						
Quit						

New Campaign ⌘C

This starts you off on a new campaign, beginning in January, 1942 with the *Loss of the Philippines*. You will be prompted to type in your name, and to select the level of play. After you click on the *Continue* button (or press the *Return* key), you are shown your *Official Orders*.

Click the mouse button, or press any key on the keyboard to continue. If the level of skill you selected is 1 or 2, an *Armament Configuration* screen appears. You may choose the amount of armament you want by clicking on the button under the boat (or by clicking the boat itself). At level 3 or 4, you're confined to historically accurate armament, and the "*Choose Boat Armament*" screen is not shown.

Next, the current *Patrol Orders* are shown to you. Click the mouse button, and you're off.

New Single Patrol ⌘N

You are shown a screen that allows you to choose one of the historical periods, and the level of play. At levels 1 and 2, you are then allowed to select the armament configuration. At levels 3 and 4, you are automatically given the armament corresponding to the period you have chosen. The program then chooses one of the patrols in the chosen theater at random, and displays the *Patrol Orders*. Click the mouse button to begin your patrol.

Practice Tactics

When you select this from the menu, you're shown a dialog box from which you can choose the level of play. (There is also a special "Sitting



Ducks" selection available only for practice. Your boat cannot be damaged.) You are given *Patrol Orders* and then sent out to practice with maximum armament.

Load Game

You are prompted to select from disk a game you've previously saved. When loaded, the game continues from the same point at which it was saved.

Note: You can "double-click" on a saved-game icon from the Finder to load a saved game.

Save Game

You may save a game in progress to disk. You will be prompted for a name to give the disk file. (Note: You cannot save a game while playing Practice Tactics.)

Quit

After prompting you to confirm that you really want to quit, the diskette is ejected and the computer reboots. (If playing from a hard disk, the program will exit to the desktop.)

INFO MENU

File	Info	Settings	Special	Game	View	07:46
Current Orders		⌘O				
Radio Log						
Boat Credits						
Top Skippers Roster						

Current Orders ⌘O

Choose this menu item to review your orders for the current patrol.

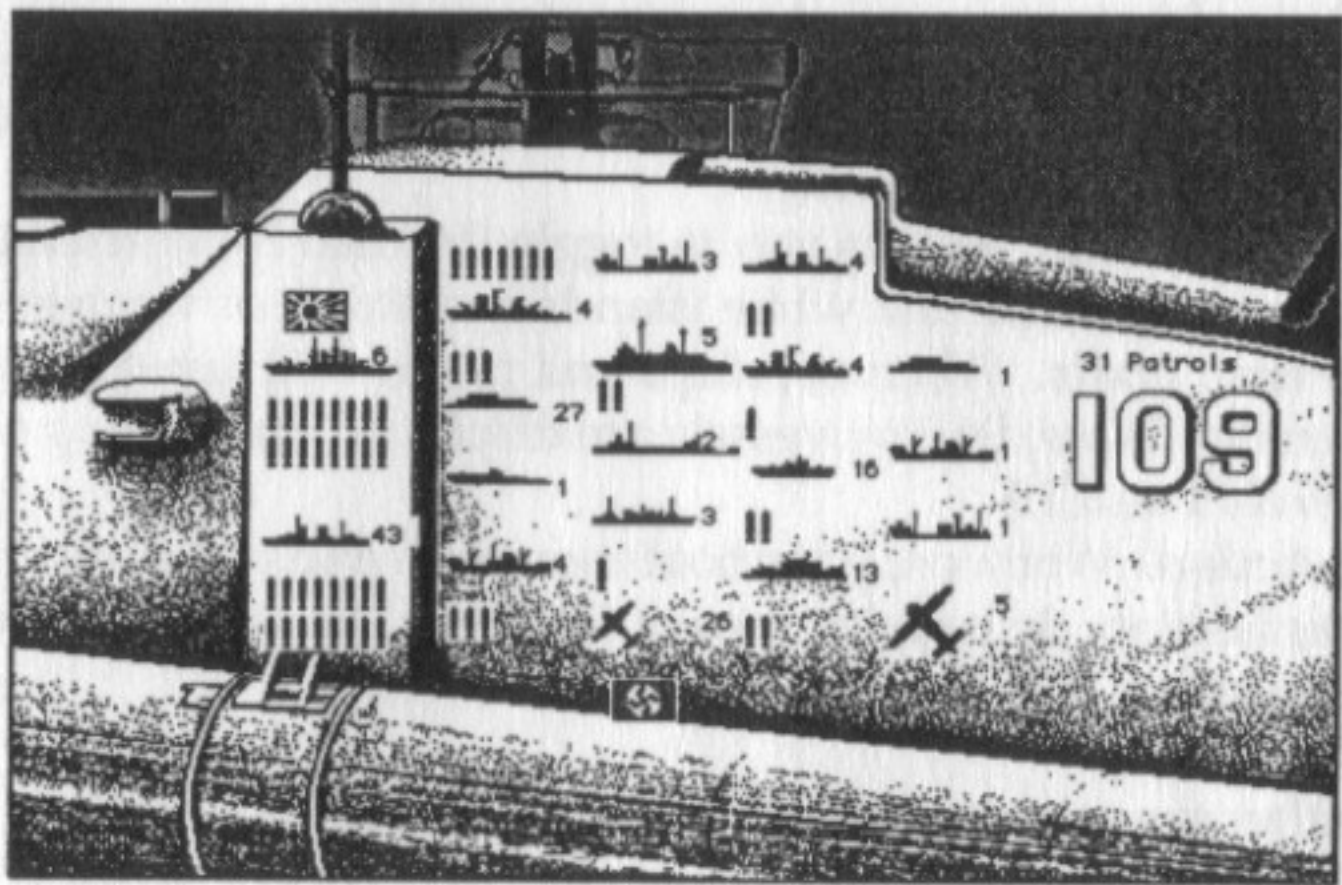


Radio Log

This menu item displays all the radio messages you've received during the current patrol.

Boat Credits

This is a graphic display of the enemy craft you have destroyed. Your crew paints a picture of each kind of enemy ship or plane on the cockpit, followed by a number if you've gotten more than one. The number of torpedoes you used to do the job is shown also. (See the chart on page 35.)

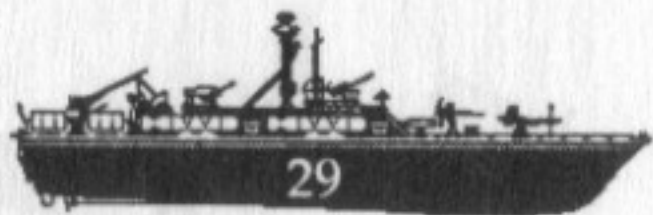


Top Skippers Roster

This is a ranked list of the skippers who have completed at least the "Loss of the Philippines" campaign. Also shown are the number of ships and planes destroyed, along with their tonnage. (See the chart on page 35.)

Top Skippers' Roster					
Name	Patrols	Subs	Ships	Planes	Tonnage
Nick McGowsky	17	0	38	2	98750
Warren Moon	30	0	46	8	109610
Larry Throgmorton	34	0	64	8	131890
Roselle Sorg	34	0	56	8	124370
Tom Enderle	26	0	57	7	119450
Ed Spence	26	0	55	7	117050
Peggy Madling	12	0	34	3	101050
Hergeret Rickard	12	0	33	3	98980
Selly Jennings	12	0	36	3	105190
Jack McGuire	12	0	36	3	105190
Seen Hill	12	0	37	3	107260
Merk Johnson	12	0	30	3	92770

Continue



SETTINGS MENU

File	Info	Settings	Special	Game View	07:46
Configuration					
Auto Pilot		⌘A			
Rapid Deployment		⌘D			

Configuration

You can set up a number of game parameters with this menu item.

Digitized Sound. When off, all games sounds are off.

Crew Speech. Turns off only the voices. All other sounds are unaffected.

Volume Level. Select the level that's most comfortable for you.

Engine Noise. Allows you to turn off the continuous engine noise. Other sounds are unaffected.

Map Background. Allows you to toggle the map background. You can have black ocean and white islands and ships, or vice versa.

Ship/Plane Trails. When on, ships and planes displayed on the map leave trails. (Note: Enemy vessels are displayed on the map only at skill levels 1 and 2.)

Wave Action. When on, your boat moves up and down in a more realistic fashion. In certain areas of the ocean, this wave action is more exaggerated.

You can either save the configuration to disk so that it's in effect every time you load **PT-109**, or apply it only to the current game.

Auto Pilot ⌘A

This command is an alternative to the button on the map. Remember that the auto pilot doesn't work when you're in the Cockpit View. Whenever you switch to the Cockpit View, the auto pilot is turned off automatically if it's already on. However, heading and speed are maintained at the same level.

Rapid Deployment ⌘D

This command is an alternative to the button on the map. Remember that *Rapid Deployment* doesn't work when you're in the Cockpit view, or when



General Quarters! Man Your Battle Stations! has been announced (that is, when the enemy is near). Whenever you switch to the Cockpit View, rapid deployment is turned off.

SPECIAL MENU

File	Info	Settings	Special	Game	View	07:46
Radio Our Base				⌘R		
Send Shore Party						
Abandon Boat						
Jump to Action				⌘J		
Jump to Port				⌘P		

Radio Our Base ⌘R

Keep in contact with your base. You will be shown this dialog box, from which you make the appropriate selections.

Radio Operator Orders

Request from Base:

☒ Air Support

☐ S.O.S. - Send Rescue

☒ Additional Boats

☐ Additional Instructions

Inform Base Command:

☒ Enemy Spotted

☐ Arrived at Rendezvous

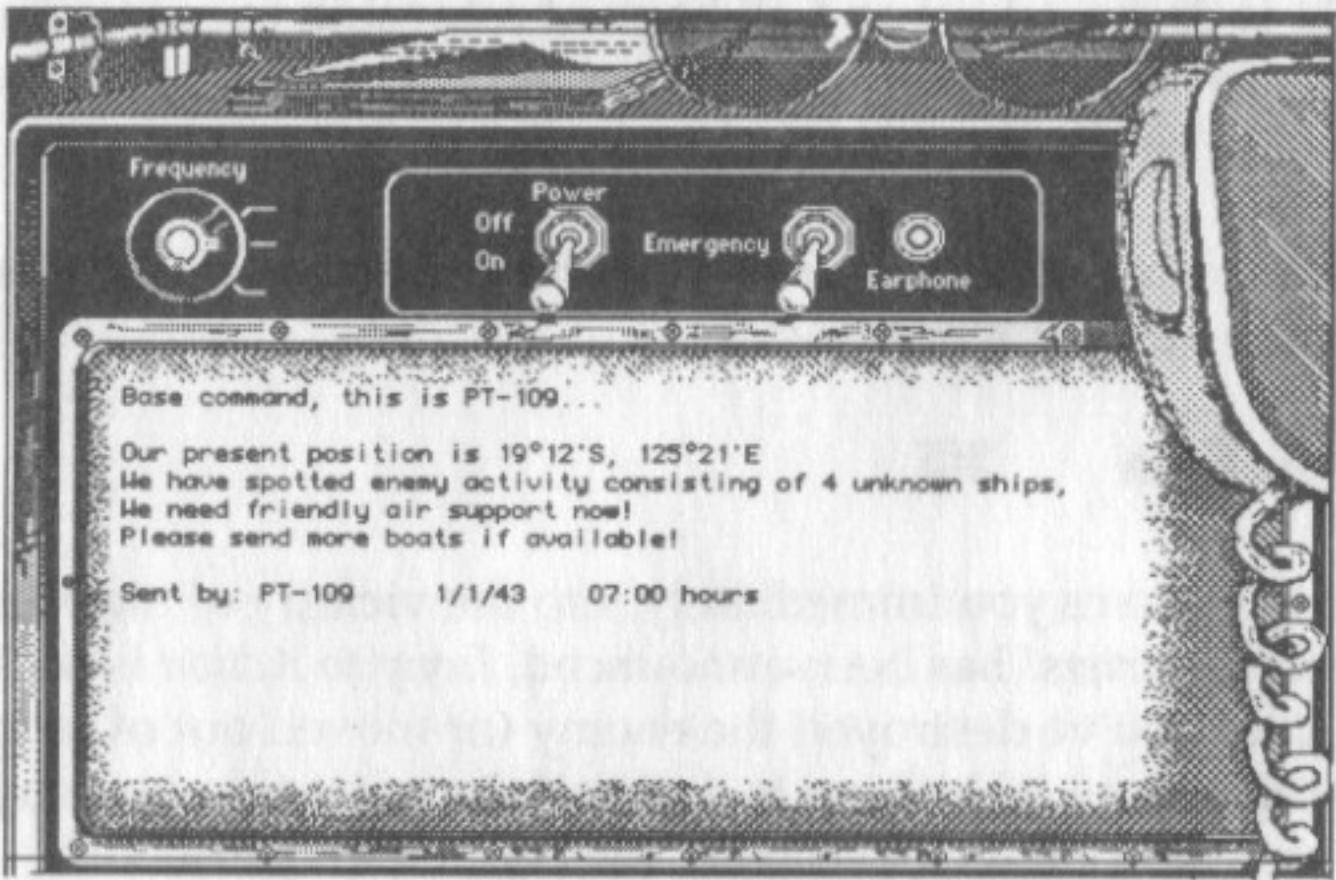
☐ Enemy Engaged

☐ Returning to Base

Send Msg

Cancel

The message will then be sent at your command.



If you've kept in radio contact with the base, your chances of being rescued (if need be) are increased. You may be told that there are no planes or extra boats available to come to your assistance. If this is the case, try again in about an hour (game time, of course).

Should you ever run out of gasoline (usually because your fuel tanks have been damaged), radio your base and ask them to send another boat to help you. By the time the boat gets there, your crew will have repaired the damage to the tank. The other boat will bring you about a quarter tank of fuel. If this is still not enough fuel to make it back to the base, radio for help again, and the other boat will bring you 375 gallons of gas. You can do this two more times, if necessary.

Send Commandoes/Send Shore Party

Once your boat is in position, use this command to dispatch your passengers. (Note: This item appears on the menu only if your patrol orders make it appropriate.) These orders are possible:

Shore Party—to be dropped off and picked up.

Commandoes—to be dropped off, picked up, or both dropped off *and* picked up.

Downed fliers—to be picked up only.

Coastwatcher—to be picked up or dropped off.

Abandon Boat

If your boat is damaged beyond all hope of returning to base, you may abandon it. In fact, it's better to abandon the boat than go down with it. If you're lost in battle, the campaign you were in is over.

If you've completed the *Loss of the Philippines* campaign, you *may* still be eligible for the Top Skipper's Roster.

Jump to Action ⌘J

This menu item takes you immediately into the vicinity of the enemy. Once *General Quarters!* has been announced, *Jump to Action* is no longer allowed. After you've destroyed the enemy (or moved out of range), you may issue the command to *Jump to Action* if there are more enemy vessels along the assigned route. Otherwise, the command is disabled.



Jump to Port ⌘P

As long as you're not in a *General Quarters!* situation, you may issue this command to go immediately to your home base. If you've not yet engaged the enemy when you give the order, your patrol evaluation will not be very favorable.

GAME MENU



Suspend/Continue ⌘S

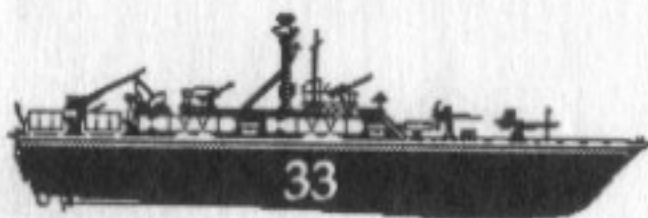
This menu item toggles between *Suspend* and *Continue*. When you select *Suspend*, all action stops until you're ready to continue.

VIEW MENU



Map/Cockpit ⌘M

Use this menu item as an alternative to clicking on the *Map* and *Cockpit* view buttons on the control panel.















The Effect of Difficulty Levels in PT-109

1	2	3	4
Minor — — — Damage from enemy gunfire; ramming; running aground — — — Severe			
Short — — — — — Time for repairs — — — — — Long			
Hard to hit — — — — — Mines — — — — — Easy to hit			
First damage always repairable		Damage to PORT level possible initially	
Torpedoes and rockets hit easier and run farther; fewer duds		Torpedoes and rockets less accurate; more duds	
Mark XIII torpedoes	For Pre-New Guinea patrols, Mark VIII torpedoes		
May choose maximum armament		Confined to armament appropriate for historical period	
Torpedoes/mines shown on radar		Torpedoes/mines not shown on radar	
Ships and planes shown on maps; Option-X shows enemy position		Ships and planes not shown on maps; Option-X disabled	
Shore parties shown on maps			Shore parties not shown on maps
Can always have at least 4 knots speed	Possible to be "dead in the water"		
Wave action doesn't change when sea state changes		Wave action may change when sea state changes	
Near — — — Distance before enemy detects you — — — Far			
25% of normal — — Likelihood of being hit by enemy — — Normal			
Your history has no effect on convoys	Enemy convoy/ship orders may be modified according to your past history in the game		



Enemy Vessels

Type	Tonnage (Approx.)	Maximum Speed (knots)	Guns*	
Cruiser	11350	34	40mm; 4-inch; 5-inch	
Destroyer	2070	34	.50 cal; 40mm; 5-inch	
Escort	1280	27	.50 cal; 40mm; 4-inch	
Patrol Boat	940	35	.50 cal; 40mm	
Flak Lighter	1200	22	.50 cal; 40mm; 4-inch	
Barge	1000	12	.50 cal	
Submarine	5310	18	40mm; 4-inch; torps	
Freighter	6000	14	.50 cal	
Fishing Boat	600	10	None	
Troop Carrier	8000	24	.50 cal	
Tanker	2200	28	.50 cal; 40mm; 3-inch	
Cargo	2200	28	.50 cal; 40mm; 3-inch	
*Effective Gun Ranges: .50 cal = 1 mile; 40mm = 1.5 mile; 3" = 2 miles; 4" = 3 miles; 5" = 5 miles				



Keyboard Command List (Macintosh)

Command	Keyboard	Command	Keyboard
<i>Navigation Commands</i>		<i>Engine Commands</i>	
Heading Left	< or ,	Throttle Up] or }
Heading Right	> or .	Throttle Down	[or {
Rudder Left	j	Muffler On/Off	m
Rudder Right	l		
Rudder Center	k		
<i>Weapons Commands</i>		<i>Other Boat Systems</i>	
Fire Torpedo	t	Zoom In (Radar)	z
Fire Rocket	r	Zoom Out (Radar)	x
Drop Depth Charge	d	Zoom/Unzoom (Map)	e
Fire Flare	f	Use Radio	⌘r
Select Small Arms		Show Coordinates	c
Targets	0-9, -, =	Display Status	u
Smoke On/Off	s		
<i>View Commands</i>			
Rotate Cockpit View	Space	Left	Shift-j
Map/Cockpit	⌘m or v	Right	Shift-k
Binoculars	b	Rear	Shift-m
Front	Shift-i		
<i>Other Commands</i>			
Faster Rate of Play	w	Save Game	(menu)
Slower Rate of Play	q	Load Game	(menu)
Show Target List	? or /	New Single Patrol	⌘n
Jump to Action	⌘j	New Campaign	⌘c
Jump to Port	⌘p	Current Orders	⌘o
Sound On/Off	Option-s	Auto Pilot On/Off	⌘a
Suspend/Continue	⌘s	Rapid Deployment	⌘d
Show Base (Map)	Option-b	Show Enemy (Map)	Option-x
Show PT-109	Option-p	Lock Target	Option-0-9,-,=



Keyboard Command Chart (Macintosh)

Small Arms

SELECT SMALL ARMS TARGETS
(CHOOSE FROM THE TARGET
LIST PROVIDED) 0-9, -, =

Option-B SHOW BASE (ON MAP)
Option-X SHOW ENEMY (ON MAP)
Option-P SHOW PT-109 (ON MAP)
Option-S TOGGLE SOUND

Weapons

R (FIRE ROCKET)
T (FIRE TORPEDO)
D (DROP DEPTH CHARGE)
F (FIRE FLARE)

Rudder

J (RUDDER LEFT)
K (RUDDER CENTER)
L (RUDDER RIGHT)

Rate of Play

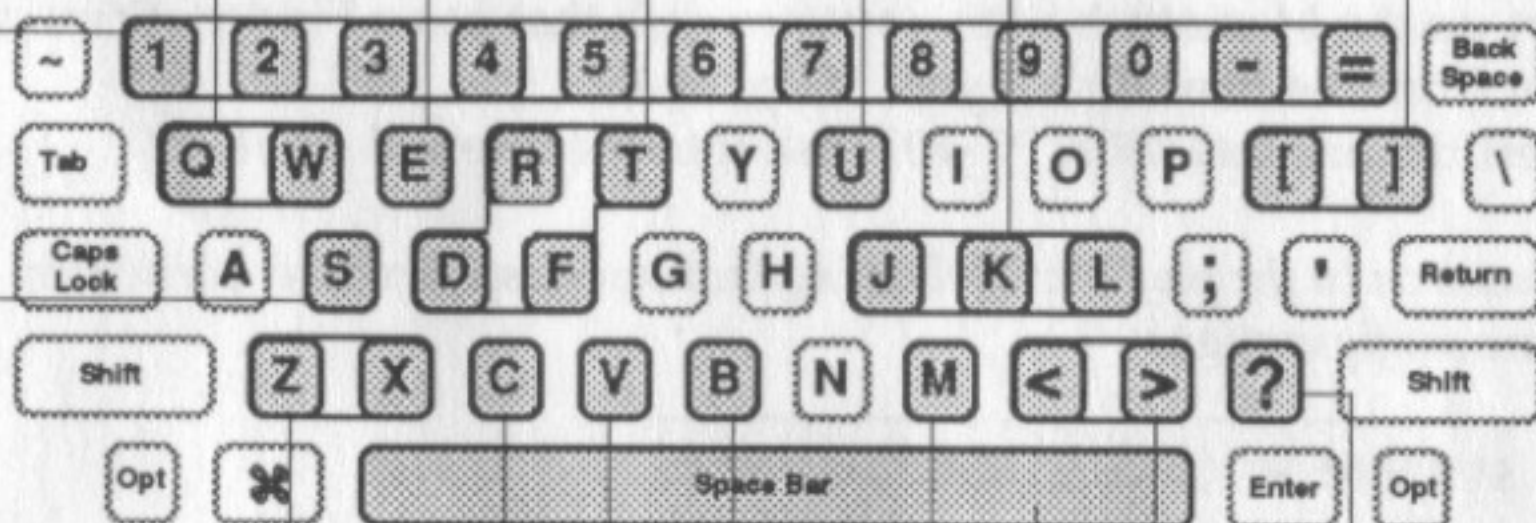
Q (SLOWER)
W (FASTER)

Throttle

[(SLOW DOWN)
] (SPEED UP)

E ZOOM IN/OUT
(MAP VIEW)

U STATUS



Tactical Zoom

Z (ZOOM IN)
X (ZOOM OUT)

V (CHANGE VIEW
MAP/COCKPIT)

Space Bar (ROTATE VIEW
TO RIGHT)

? (SHOW TARGET
LIST)

B (BINOCULAR VIEW
ON/OFF)

Desired Heading

< (HEADING LEFT)
> (HEADING RIGHT)

C SHOW COORDINATES

S SMOKE ON/OFF

M (MUFFLERS ON/OFF)

Views

Shift-I (FRONT)
Shift-J (LEFT)
Shift-K (RIGHT)
Shift-M (REAR)

LOCK HEADING ON TARGET
(CHOOSE FROM TARGET LIST
PROVIDED) Option-0-9, -, =

Additional ⌘ key options can be
found on pull-down menus



Appendix—Making 400K Disks

If you need to make 400K disks for your computer and have access to a Macintosh with an 800K drive, use the following instructions. You will need: (2) 400K disks, a Macintosh with at least an 800K floppy drive, and the original PT-109 disk.

IMPORTANT!! Before going any further, make sure the write-protect tab is set on your original 800K PT-109 disk. This will prevent its being erased accidentally.

For all systems:

1. Format the two floppies as single-sided 400K disks. *IMPORTANT!! The second disk must be named PT2.*
2. Start up the Macintosh with a system disk that has a Finder. (You can boot from the hard disk if you have one.)
3. Insert the original 800K PT-109 disk into the internal drive.

Now, move on to the paragraph following that best describes your particular hardware configuration.

For a system with one 800K drive:

4. Click once on the icon for the PT-109 disk. Then select the *Eject* command from the File Menu.
5. Place the first 400K disk into the internal drive. Double-click the 800K disk icon, select the following files, and drag them to the first 400K disk:

System

PT109

PT.data

Watch for instructions about when to swap disks.

6. When the copy is complete, open the icon for the first 400K disk, and highlight the icon for the file **PT109**. Select *Set Startup...* from the Special Menu. Click *OK* in the dialog box.
7. Eject the first 400K disk and label it appropriately. Insert the second 400K disk into the drive.
8. Open the icon for the 800K disk again. Select the rest of the files and drag them to the second 400K disk.
9. Eject the second 400K disk and label it accordingly.



For a system with two 800K drives:

4. Insert the first 400K disk into the external drive. Copy the following files from the 800K disk to the first 400K disk:

System

PT109

PT.data

5. When the copy is complete, open the icon for the first 400K disk, and highlight the icon for the file **PT109**. Select *Set Startup...* from the Special Menu. Click *OK* in the dialog box.
6. Eject the first 400K disk and label it appropriately. Insert the second 400K disk into the drive.
7. Open the icon for the 800K disk again. Select the rest of the files and drag them to the second 400K disk.
8. Eject the second 400K disk and label it accordingly.

For a system with a hard disk and one 800K drive:

4. Make a new folder on the hard drive. (This is just a temporary folder, so don't bother to name it.) Copy all the files from the 800K PT-109 disk to the new folder.
5. Eject the 800K disk, and insert the first 400K disk. Open the new folder and copy the following files from the folder to the first 400K disk:

System

PT109

PT.data

6. When the copy is complete, open the icon for the first 400K disk, and highlight the icon for the file **PT109**. Select *Set Startup...* from the Special Menu. Click *OK* in the dialog box.
7. Eject the first 400K disk and label it appropriately. Insert the second 400K disk into the drive.
8. Open the folder on the hard disk again. Select the rest of the files and drag them to the second 400K disk.
9. Eject the second 400K disk and label it accordingly.
10. Drag the temporary folder on the hard disk to the trash.



Exploring Further

A great number of quality books have been written on PT boats and can be found at your local public library. Plus, there's a special museum located in Fall River, Massachusetts, that is dedicated to PT Boats and PT memorabilia. The museum is associated with an organization called P.T. Boats, Inc. that has a very comprehensive list of souvenirs available, including video tapes, books, clothing, and PT boat artifacts.

To receive additional information on the museum, plus an order form listing the souvenirs available through the P.T. Boats, Inc. office, please write to the following address:

P.T. Boats, Inc.
P.O. Box 109
Memphis, Tennessee 38101
(901) 272-9980

The address of the museum itself is:

P.T. Boat Museum
Battleship Cove
Fall River, Massachusetts 02721



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