

OFFICIAL GAME GUIDE

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BATTLESTATIONS MIDWAY™



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BASED ON A GAME
RATED BY THE
ESRB **TEEN**
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Covers: Xbox® 360 & PC



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Battlestations : Midway : Prima official
game guide

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BATTLESTATIONS MIDWAY UNITS

Mitsubishi A6M Zero-Sen 'Zeke'

Crew: 1 • Length: 29,72' • Wingspan: 36,08' • Max. Speed: 373,2 mph
Armament: 2 x 7.7mm machine gun, 2 x 20mm 99M1 autocannon
Optional: 2 x 100kg Bomb

Grumman F4F Wildcat

Crew: 1 • Length: 28,96' • Wingspan: 37,98'
Max. Speed: 398,08 mph
Armament: 6 x .50cal machine gun, Optional: 2 x 200lbs bomb

Mitsubishi G3M 'Nell'

Crew: 5 • Length: 53,96' • Wingspan: 82' • Max. Speed: 311 mph
Armament: 3 x 7.7mm machine gun, 6 x 250kg bombs or one torpedo

Boeing B-17 Flying Fortress

Crew: 10 • Length: 74,32'
Wingspan: 103,81' • Max. Speed: 273,68 mph
Armament: 13 x .50cal machine gun, 10 x 450 lbs bombs

Mitsubishi G4M 'Betty'

Crew: 7 • Length: 65,6' • Wingspan: 82' • Max. Speed: 311 mph
Armament: 3 x 7.7mm machine gun, 2 x 20mm machinegun,
8 x 250kg bomb or one torpedo

B-25 Mitchell

Crew: 5 • Length: 52,91' • Wingspan: 67,57' • Max. Speed: 311 mph
Armament: 10 x .50cal machine gun, 6 x 450 lbs bombs

Kawanishi H6K5 'Mavis'

Crew: 8 • Length: 84,07' • Wingspan: 131,20' • Max. Speed: 311 mph
Armament: 4 x 7.7mm machine gun, 2 x torpedoes or depth charges

Douglas DC-3

Crew: 3 • passengers • Length: 64,18' • Wingspan: 94,98'
Max. Speed: 311 mph
Armament: None

Kawanishi H8K 'Emily'

Crew: 10 • Length: 92,27' • Wingspan: 124,64' • Max. Speed: 311
Armament: 3 x 7.7mm machinegun, 3 x 20mm machinegun,
2 x torpedoes or depth charges

PBY Catalina

Crew: 7 • Length: 63,86' • Wingspan: 103,97' • Max. Speed: 311 mph
Armament: 3 x .30cal machinegun, 2 x .50cal machinegun,
2 x torpedoes or depth charges

Mitsubishi F1M 'Pete'

Crew: 2 • Length: 31,16' • Wingspan: 36,08' • Max. Speed: 311 mph
Armament: 2 x 7.7mm machine gun

Grumman TBF Avenger

Crew: 3 • Length: 40,50' • Wingspan: 54,15' • Max. Speed: 311 mph
Armament: 2 x .50cal machine gun, 1 x torpedo, 1000 lbs bomb or depth charge

Aichi E13A 'Jake'

Crew: 3 • Length: 37,06' • Wingspan: 47,56' • Max. Speed: 311 mph
Armament: 1 x 7.7mm machine gun, 2 x 250kg bomb or depth charge

Douglas SBD Dauntless

Crew: 2 • Length: 32,67' • Wingspan: 41,52' • Max. Speed: 311 mph
Armament: 2 x .50cal machine gun, 1 x 1000 lbs bomb or depth charge

Douglas TBD Devastator

Crew: 2 • Length: 35' • Wingspan: 50' • Max. Speed: 311 mph
Armament: 1 x .30cal machine gun, 1 x torpedo

Nakajima B5N 'Kate'

Crew: 3 • Length: 33,78' • Wingspan: 50,61' • Max. Speed: 311 mph
Armament: 2 x 7.7mm machine gun, 1 x torpedo or 500kg bomb

Aichi D3A 'Val'

Crew: 1 • Length: 31,75' • Wingspan: 37,33' • Max. Speed: 373,2 mph
Armament: 4 x .50cal machine gun, Optional: 200lbs bomb

Curtiss P-40 Warhawk

Crew: 1 • Length: 31,75' • Wingspan: 37,33' • Max. Speed: 373,2 mph
Armament: 4 x .50cal machine gun, Optional: 200lbs bomb

Fairey Swordfish

Crew: 3 • Length: 34,11' • Wingspan: 45,59' • Max. Speed: 311 mph
Armament: 1 x 7.7mm machine gun, 1 x torpedo or 2 x 200 lbs bomb

Nakajima Ki-43 'Oscar'

Crew: 1 • Length: 28,96' • Wingspan: 37,52' • Max. Speed: 373,2 mph
Armament: 2 x 12.7mm machine gun, Optional: 2 x 100kg bomb

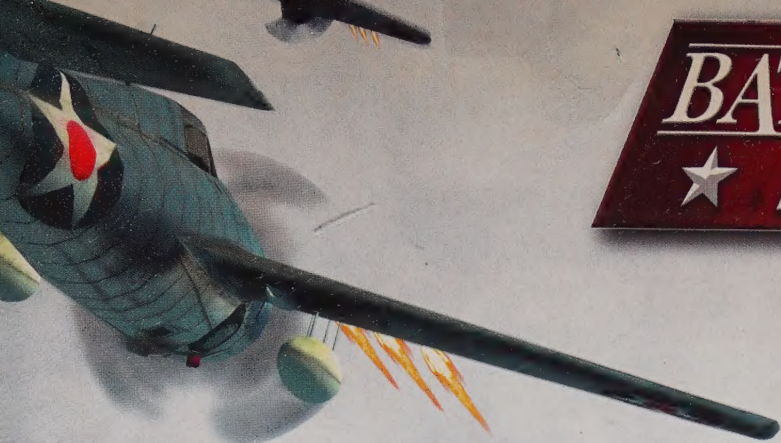
Brewster F2A Buffalo

Crew: 1 • Length: 26,33' • Wingspan: 35' • Max. Speed: 373,2 mph
Armament: 4 x .50cal machine gun, Optional: 2 x 200 lbs bomb

Yokosuka D4Y 'Judy'

Crew: 2 • Length: 33,52' • Wingspan: 37,72' • Max. Speed: 311
Armament: 2 x 7.7mm machine gun, 1 x 500kg bomb or depth charge

for more information visit our website: www.battlestations.net



BATTLESTATIONS ★ MIDWAY ★

PRIMA Official Game Guide

Written by Michael Knight

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Michael Knight



Michael Knight has worked in the computer/video game industry since 1994 and has been an author with Prima Games for ten years, writing over 60 guides during this time. Michael has used both his degree in Military History and experience as a high school teacher to formulate and devise effective strategies and tactics for hit titles such as the Tom Clancy's Rainbow Six and Hitman series. He has also authored several titles in the *Star Wars* universe including *Star Wars Republic Commando*, *Star Wars Episode III: Revenge of the Sith*, *Star Wars Battlefront II*, and *Star Wars Empire at War*. Michael has also developed scenarios/missions and written game manuals for SSI, Red Storm Entertainment, and Novalogic.

When he is not busy at work on an upcoming strategy guide, Michael likes to spend time with his wife and four children at their home in Northern California. It was with their help that Michael used his abilities and experience to write three travel/strategy guides on Disneyland and Southern California, in which he developed tips and hints to help vacationing families save time and money while maximizing their fun.

We want to hear from you! E-mail comments and feedback to mknight@primagames.com.

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Acknowledgments

This book is dedicated in memory of my great-uncle, James Van Kirk, and to my mother-in-law's father, Robert Slaght, as well as all of the brave men and women who served in the Pacific Theater during World War II.

Corporal Van Kirk served in the 2nd Marine Division, USMC, as a BAR (Browning Automatic Rifle) rifleman and took part in the invasions of Tarawa Atoll in the Gilbert Islands in November 1943 and Saipan in the Marianas Islands in June 1944 in addition to several other actions. He was wounded seriously by a Japanese sniper on Saipan and earned the Pacific Campaign Medal, World War II Victory Medal, and the Purple Heart, ending the war with the 4th Marine Division.

Corporal Slaght served in the Americal Division, U.S. Army, and took part in several battles throughout the Pacific, including Bougainville in 1944 and the Leyte Campaign in the Philippines from 1944–1945. He was killed in action during the invasion of Cebu and posthumously awarded the Purple Heart.

I would like to thank Rebecca Chastain, Todd Manning, and Jill Ellis at Prima Games for their help in making this book a reality, as well as Nick Clarke and Matthew Russell at Eidos for all of their assistance.

Finally, I want to express my love and gratitude to my wife Trisa and our four children—Beth, Sarah, Connor, and Tanner—for all their support while I am writing a book.

The War in the Pacific— from Start to Midway

Japan's Rise to Power

Out from Isolation

While December 7, 1941 was the date that Japan officially went to war with the United States and its allies, the roots of the conflict began much earlier. While Europeans were beginning to expand throughout the world, spreading Western ideas, religion, and commerce in the late sixteenth century, Japan saw the threat to their culture—their way of life—and adopted a policy of isolationism beginning in 1598. This lasted for over two and a half centuries until an officer of the U.S. Navy, Commodore Matthew Perry, sailed into Tokyo Bay in 1852 and opened Japan to the West.

After observing how China, the once great Middle Kingdom, had become subservient to the Western powers through a series of unequal treaties as a result of the Chinese desire to retain the old ways, Japan saw the need to embrace some Western ideas and technology in order to preserve her rich cultural heritage. Japan sent military officers to study in the United States and Europe. It purchased Western weapons and naval ships and created a modern military with a navy modeled after that of Great Britain's Royal Navy—at the time the most powerful in the world.

The Russo-Japanese War

Within half a century, Japan was at odds with Russia over territorial ambitions in Manchuria and Korea. When the Japanese navy made a surprise attack on the Russian fleet at Port Arthur on the coast of southern Manchuria

in February of 1904, war erupted. The war continued with minor naval engagements and ground battles in Manchuria and Korea. However, the war's culmination occurred in May 1905 when a Japanese fleet intercepted the Russian Baltic fleet in the Tsushima Strait, located between Japan and Korea. Though the Japanese fleet contained only four battleships, it succeeded in sinking all eight Russian battleships as well as sinking or capturing most of the remaining fleet. Within a matter of months, the war was over. For the first time in modern history, an Asian nation had defeated a Western power.

Imperial Ambitions

Japanese expansion continued. During the World War I, Japan seized German colonies in the South Pacific and trading ports in China. Japan also continued to industrialize in order to compete with the West. However, as an island nation of limited resources and a growing population, Japan needed to expand—and China appeared ripe for the taking. After seizing control of the Chinese province of Manchuria in 1931, conflict between the two Asian nations continued throughout the remainder of the decade in what came to be known as the Sino-Japanese War.

To create what the Japanese called the Greater East Asia Co-Prosperity Sphere, Japan also sought to control other parts of Southeast Asia, many of which were colonial possessions of European nations. This prosperity would all go to Japan as they would use resources obtained throughout this area to create an Asian economic and military power to rival the West.

Sailing toward War

Western Reaction

As Japan continued to expand, the United States became concerned about Japan's imperial ambitions. This increased as news of Japanese atrocities in China, such as the Nanking Massacre, reached the West. As a result, the U.S. government, under President Franklin Roosevelt, began to cut shipments of scrap iron and other metals to Japan. These resources were vital to the Japanese industry, which had exhausted its supply of materials in order to build up its military—especially its modern navy. By

mid-1941, the United States was continuing this course of action by limiting oil shipments to Japan in an effort to use economic sanctions to curb Japanese aggression in China.

However, Japan viewed this embargo as a threat to their very existence. Without oil, their army and navy would come to a standstill and be vulnerable to Western attack. This could not be permitted. If oil could not be purchased from the United States, the main supplier in the Pacific, then it must be seized from the European colonial possessions in southeastern Asia.

The Plan

Japanese military leaders believed they would face little resistance from the European powers as Japan took control of their East Asian colonies. France and Holland had surrendered to Germany, and Britain was fighting for its life. As a member of the Tripartite Pact with Germany and Italy, Japan could secure the British, French, and Dutch colonies for itself. Only one threat remained—the United States.

In order to make this Co-Prosperity Sphere a reality, Japan needed time to take control of the territory and then fortify it for defense. War plans were created to neutralize or at least postpone intervention by the United States. Admiral Isoroku Yamamoto, commander in chief of the Combined Fleet, believed that the U.S. fleet must be destroyed or at least rendered powerless, or the Americans would interfere with the expansion in Southeast Asia.

Having studied at the U.S. Naval War College and Harvard, Yamamoto had firsthand experience with America. He knew it was an industrial giant that could easily overwhelm Japan. However, the Japanese plan only called for buying time. It would take America a while to change to war production—allowing Japan to fortify its conquests.

Yamamoto proposed attacking the U.S. fleet that had moved its headquarters to Pearl Harbor in the Hawaiian Islands. A surprise attack, like that at Port Arthur, would give the Japanese the advantage, and by sinking the U.S. battleships and aircraft carriers, it would be a while before the United States could go on the offensive in the Pacific. Yamamoto told his superiors he could roam the Pacific for six months, possibly a year, before the might of the United States would be brought against Japan. He knew attacking America would awaken a sleeping giant. However, he and the leaders of Imperial Japan did not realize how dedicated this giant would be in pursuing a war. Instead, they believed after a few defeats, America would return to its interwar isolationism.

Japan Attacks

A Day of Infamy

Japanese naval aircraft struck the U.S. Pacific fleet on the morning of December 7, 1941. The attack caught the United States totally by surprise and resulted in the sinking of several battleships and heavy damage to many of the remainder. However, the main target of the attack—the three U.S. aircraft carriers—were not in port at the time.

A few hours later (on December 8, due to the location of the international date line), Japanese forces also launched an attack against U.S. forces in the Philippines and began moving toward French Indochina, British Malaya, and the Dutch East Indies. World War II had spread to the Pacific.

The Coral Sea

By March of 1942, Japanese forces had secured nearly all of their objectives. The stubborn U.S. resistance in the Philippines faltered in April and finally ceased in May with the surrender of the forces on Corregidor. Japan continued to advance in the south to secure New Guinea as a preparation for cutting off Australia from U.S. support. The United States could not allow this.

As a result of the destruction of its battleships, the U.S. Navy now had to build its fleets around its surviving carriers. By this time, U.S. naval intelligence had broken the Japanese naval codes and knew of Yamamoto's plans to seize Port Moresby in the southeastern part of New Guinea.

To prevent this invasion, Admiral Chester Nimitz, commander in chief of the Pacific Ocean Area, sent a fleet under the command of Rear Admiral Frank Jack Fletcher. This fleet included two aircraft carriers—the USS *Lexington* and the USS *Yorktown*. Ironically, these would be the namesakes of the first and last battles of the American Revolution that would successfully engage the Japanese Navy for the first time.

The ensuing battle was also the first time in naval history where two opposing fleets did not come into sight of each other. Instead, the carrier-based aircraft delivered all the attacks. In the end, the battle was essentially a draw. The United States managed to hurt the three Japanese carriers involved—they sunk the *Shoho*; seriously damaged the *Shokaku*, which would be out of action for several months; and shot down many of the aircraft from the *Zuikaku*. In return, the United States lost the *Lexington*, and the *Yorktown* was damaged and forced to return to Pearl Harbor for repairs. However, in a historical view, this was a U.S. victory since it prevented three Japanese carriers from participating in the upcoming battle for Midway.

The Battle of Midway

A Trap for the Carriers

As a result of the losses in the Coral Sea, Yamamoto devised a plan to get rid of the American carriers that plagued his operations. He would set a trap for them. In order to lure the U.S. fleet away, Yamamoto ordered an invasion in the Aleutian Islands in the northern Pacific as a diversion. Meanwhile, his main fleet would move in to invade the Midway Atoll, located to the west of Hawaii. This would force the United States to send its carriers to retake this atoll, which would threaten Hawaii while under Japanese control. When the carriers arrived, Yamamoto would spring his trap and destroy the carriers.

Unfortunately for Yamamoto, the Americans had intercepted his radio messages and knew his plan. Nimitz decided to turn the tables and surprise Yamamoto. The U.S. carriers *Enterprise* and *Hornet* were placed under the command of Rear Admiral Raymond Spruance, while the repaired *Yorktown*—which Yamamoto believed was sunk in the Coral Sea—was assigned to Fletcher. Nimitz's plan was to keep the carriers to the north of Midway and wait. Since Yamamoto planned for the carriers to come from Pearl Harbor, he positioned submarines to the east of Midway to let him know when the carriers were on their way. Little did he know, the carriers were already there.

Attack on Midway

The battle began on June 4 when Vice Admiral Chuichi Nagumo brought his fleet into position. He commanded four carriers—the *Akagi*, the *Kaga*, the *Hiryu*, and the *Soryu*. In preparation for the invasion, Nagumo ordered half of his planes to attack the U.S. airfield at Midway to neutralize its defenses. He held the rest of his aircraft ready in case the U.S. fleet arrived.

Alert to the upcoming attack, the forces on Midway were able to get all of their aircraft up in the air to help defend the island. This prevented the first Japanese attack wave from accomplishing their objective. Since Nagumo's scout aircraft to the east had not yet spotted the U.S. carriers, he decided to replace the armor-piercing bombs and torpedoes on his bombers—used for attacking ships—with high-explosive bombs to continue the attacks on Midway.

Meanwhile, bombers from Midway located the Japanese fleet and made unsuccessful attacks against the carriers, failing to get a single hit. However, the United States now knew where the enemy fleet was located. As Spruance was launching his aircraft for an attack, a Japanese scout plane spotted the U.S. fleet and sent a message to Nagumo that it contained at least one carrier. Nagumo

now had to change the ordnance once again on his aircraft back to bombs and torpedoes for attacking ships. However, the aircraft returning from Midway had to land before he could launch his attack, causing further delay.

Strike on the Carriers

Torpedo bombers from the *Hornet* and *Enterprise* were the first to locate the Japanese fleet. Coming in low and slow, they were attacked by Zero fighters flying combat air patrol over the fleet. Most of the torpedo bombers were shot down without making any hits. However, while the Japanese fighters were at low altitude, dive-bombers from the *Enterprise* found the fleet and began their attack unmolested.

The Japanese carriers were extremely vulnerable with aircraft, fuel, and bombs on the deck and in the hangars. The American bombers scored hits on both the *Akagi* and *Kaga*—leaving both in flames to sink later that evening. Shortly thereafter, the aircraft from the *Yorktown* arrived. While the torpedo bombers scored no hits, the dive-bombers hit the *Soryu*, which was soon abandoned due to fires raging aboard it.

The only remaining Japanese carrier, the *Hiryu*, was untouched and able to finally launch its strike against the U.S. carriers. By following the planes returning to the *Yorktown*, they found the carrier and began an attack. They scored three bomb and two torpedo hits, which caused enough damage to make the crew abandon ship. Once planes on the *Hornet* and *Enterprise* were readied for another attack, they set off and struck the *Hiryu*, setting it ablaze as well.

Aftermath of Midway

The *Yorktown* was still afloat by day's end. Since it could not sail on its own, another ship was towing it to Pearl Harbor for repairs on June 6. A Japanese submarine torpedoed the carrier on the way. It finally sunk the following day—exactly six months after the attack on Pearl Harbor.

Although the U.S. lost one of its three carriers at Midway, the Japanese results were much worse—all four Japanese carriers sunk. In addition to the losses in the Coral Sea, the Japanese Navy had taken a serious blow from which it could never recover. From this point on, the Japanese forces were unable to continue their offensive war and had to begin defending their territory from the advancing Allied forces. The Battle of Midway was the turning point in the Pacific War, which would continue for another three years before Japan finally surrendered.

The Naval Academy

This game puts you in command of several different types of units as well as an entire fleet. To prepare for these duties, you can go through the Naval Academy training missions. There are 11 missions total, and they range from how to look around and move your ship to dropping bombs from planes and even to controlling a formation of ships. However, you don't have to go through all the Naval Academy missions before you can start the campaign. In fact, with only a few under your belt, you are ready to tackle the first campaign mission. In the U.S. Campaign section, you can find the training missions you should have completed before you play each campaign mission.



Tip

Naval Academy Graduation

40



Once you complete all 11 Naval Academy missions, you will unlock the Naval Academy Graduation achievement and earn 40 points towards your gamerscore on the Xbox 360.

Piloting a Ship

November 17, 1941

Welcome to the U.S. Naval Academy. In this mission you will learn how to use the camera and how to pilot a ship.



The destroyer *Blue* is yours to command for this training course.

This is the first and most basic of the training missions, where you must start at the bottom and work your way up. You will learn how to look around to locate enemies and then maneuver your ship into range to engage them.

The Interface

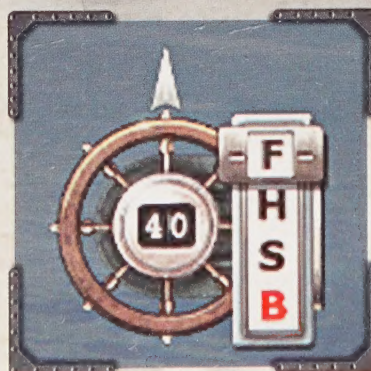
For this training course, you have been given command of the U.S. destroyer *Blue*. Your control use is limited to those that are discussed during the training, so don't worry about not being able to do everything right at the start. Instead, sit back and learn about the game interface. Many of the items on the screen are common for all types of units.



In the screen's top-right corner is the compass. It displays the direction you are traveling, the direction you are looking, and the locations of nearby detected units. The single dark black line will always point in the direction your ship is facing. The lighter shaded arc, which always points toward the top of the compass, represents the direction the camera is facing—where you are looking. Blue dots represent U.S. units; red dots are Japanese.



The compass

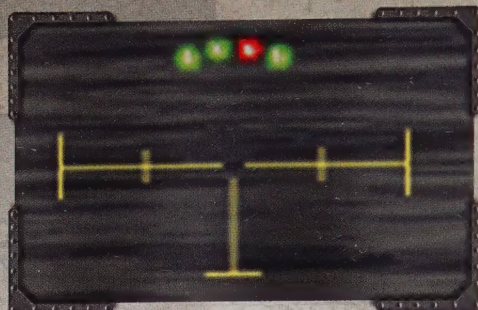


The helm

In the screen's bottom-right corner is your helm. This displays the settings of your rudder and throttle as well as your current speed. The throttle's settings are "S" for stop (default), "H" for half-speed ahead, "F" for full speed ahead, and "B" for back or reverse. The arrow at the wheel's top shows your rudder setting. When it is at the top, your rudders

are full astern, meaning that you will sail in a straight line. When the arrow moves right or left, it shows how much right or left rudder you have set and the direction your ship is turning.

The crosshairs are at the screen's center. It shows you where you are aiming. This reticule changes depending on the type of weapon you have selected. For this training course, you do not control any weapons, so a red circle with a slash appears over the crosshairs to indicate no weapon is available for use.



The crosshairs



The unit window

The screen's bottom left contains the unit window. This describes the unit you have currently selected. The initials to the right of the unit's name identify the unit's class. The "DD" stands for destroyer. The colored bar at the bottom of the unit window represents the amount of damage the ship has taken. When the bar is full and green, your destroyer has no damage. Above the unit window is the current order for the unit. In this case, your destroyer's orders are to stop.

Maneuvering



Engines, full speed ahead.

Order your ship to move forward. A yellow icon appears ahead of your ship, indicating the location to which you must sail. Turn the ship left and right to get a feel for the steering mechanism and sail to the objective.



Take care not to hit the coastline—collisions will damage your ship.

While you are sailing your ship, you can look—and aim your weapons—in a different direction from which you are traveling. Use the camera controls to look around. You can rotate completely around your ship and look up and down. From this view, you can also use the binoculars to zoom in and look closer at objects in the distance. Press the Binoculars button and zoom in on the carrier. You can fire weapons from Binoculars mode.

The Camera



The binoculars are great for identifying targets and for aiming weapons at distant enemies.



You can still steer your ship while in Binoculars mode. However, you can't adjust your speed.



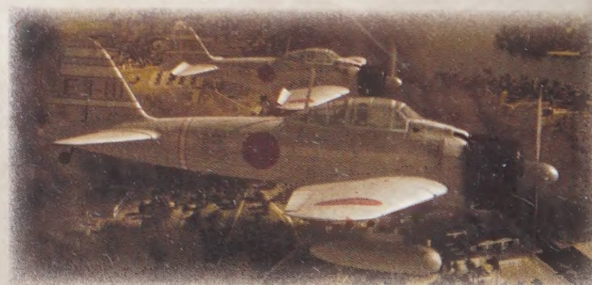
Use the Camera Reset button to reset your camera to look straight ahead.

Manning the Guns

November 19, 1941

Learn how to use all types of ship weaponry: artillery, AA, torpedoes, and depth charges.

In this training course, you will learn to control your ship's guns. Your destroyer is armed with artillery, AA guns, torpedoes, and depth charges. Not every ship has all these weapons. For example, a battleship has only AA guns and artillery.



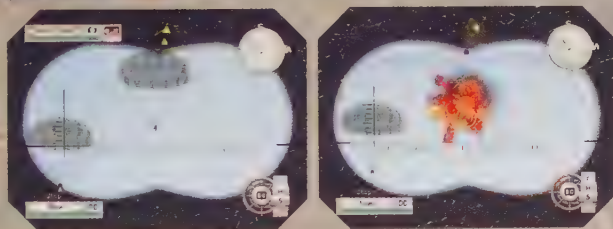
Controlling AA Guns

Let's begin with your AA guns. "AA" stands for "anti-aircraft"; these guns are primarily used against enemy planes. When you fire these guns, every AA gun which can aim at the target will fire. Some ships also mount flak guns. These fire shells



AA guns are usually the smallest guns on your ship.

that explode, so they don't have to get a direct hit on a plane to cause damage. A C-47 Dakota will drop targets for you to shoot at. Use the Camera view to line up the crosshairs on one of the targets suspended below the parachutes. You can use Binoculars mode to increase your accuracy. Shoot down four of the targets.



AA guns are most effective when the crosshairs are in Lock-on Target mode. When you are locked onto a target, four little arcs appear around the circular crosshairs, indicating that your shots will hit the target.

Controlling Artillery



Artillery are your big guns.

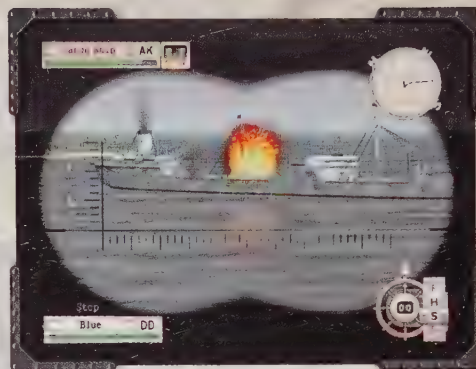
Artillery are the main guns every warship carries. Press the Cycle Weapons button to change to your artillery. Notice how your crosshairs change when you switch. Each type of weapon has its own unique crosshairs, though they

all function in the same way. You must aim your artillery at a target. It can be a ship, a fortress, or a location ahead of

your target. If the target is out of range, your guns will not fire. There are indicator lights around the crosshair, one for each turret:

- **Red light:** The turret cannot fire where you are aiming.
- **Yellow light:** The turret can see the target point but is still turning to aim.
- **Green light:** The turret is ready to fire.
- **Flashing red light:** The turret is reloading.

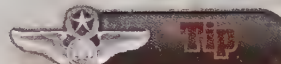
Your target is the cargo hulk located behind and on your port (left) side. Shoot it five times to complete this phase of the training course.



Use Binoculars view for more accuracy, and try targeting different parts of the ship.

Notice that the rounds will land where you are aiming. If you aim at the water in front of the ship, it hits the water, sending a geyser into the air. When firing at an enemy ship, watch for these geysers, as they indicate your missed shots and

help you correct your aim for future shots. Experiment with looking around your ship and watching the turrets move. Not all of your guns can fire in all directions.



Be precise with your artillery salvos. Certain areas of enemy ships are more vulnerable than others, such as the engines and magazines.

Controlling Torpedo Launchers



Torpedoes travel in a straight line at the same bearing at which you launch them. While a stationary target is easy to hit, a moving target requires you to fire ahead of it, where you expect the target to be by the time the torpedoes cover the distance.

The torpedo is the most dangerous weapon in your arsenal. Torpedoes hit below the waterline, making them the most reliable way to sink an enemy. Cycle your weapons to switch to the torpedo tubes. Fire torpedoes just like any other weapon. However, because torpedoes float, weapon elevation does not matter. Use your torpedoes to sink the

cargo ship off your port side. When you fire, two torpedoes will launch.

Although torpedoes are powerful, they travel slowly. Firing them in a spread makes it harder for your enemy to avoid them. To do this, fire a pair of torpedoes at one bearing and then move your crosshairs to another bearing and fire again. This puts several torpedoes in the water; they will cover a larger area and give you a better chance of a hit. Torpedoes also take a while to reload, so after firing off all your launchers, you must wait a couple minutes until you can fire again. It takes only two torpedo hits to sink a cargo ship. It takes six or more torpedo hits to sink larger ships such as battleships.



Note

Torpedoes are the most devastating weapons against slow-moving targets.



Controlling Depth Charge Racks



This underwater view appears as soon as you drop your first depth charges. Use it to maneuver your ship right over enemy subs to drop charges on them.

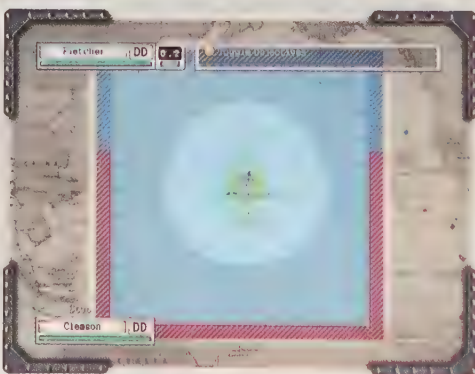
Your final weapon system is the depth charge. Cycle your weapons to it. This is the only weapon effective against submerged submarines. They cannot be aimed; you must drop them from the back of the ship. They explode once they reach a preset depth or if they come close to an enemy sub. Drop some depth charges and you will see that the screen goes to a special camera that allows you to view the action below your ship. You can turn the camera around and steer your ship at the same time. There is a small submarine below your ship. Watch it sink as it takes damage from your depth charges.

Tactical Map

November 20, 1941

Learn about the tactical map display and how to use it to control your units.

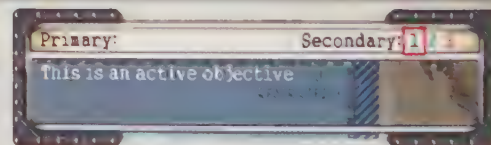
Here you will learn to use the map display interface to issue tactical commands. Access the Map screen by pressing the Map button. The Map screen shows your mission area, all friendly units, and any detected enemy units. Your selected unit is highlighted in



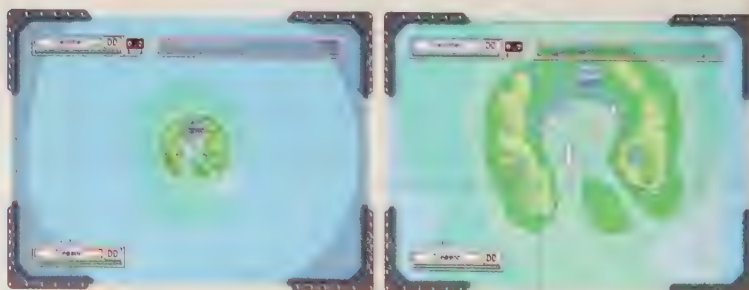
The tactical map default zoomed-out view

yellow. The unit window in the lower left corner displays the selected unit. The window in the upper left corner displays the selected unit's target or the unit that is beneath your cursor. The panel in the upper right shows your objectives. If you are unsure about what to do next, review your objectives. Press the indicated button to enter Objective mode.

The Objective panel displays the status of your objectives. A gray number indicates that the objective is active. A green number means you have completed an objective. A red number means that it is failed. You can cycle through your objectives. Press the indicated button to exit Objective mode.



The Objective panel



Map at 1x zoom

Map at maximum zoom

You can also zoom in your view. Press the Zoom-in button twice. The map zooms in on the area where your crosshairs are centered.

The Naval Academy

Place the map at maximum zoom to see extra detail such as fortifications and individual planes. Press the Zoom-out button once. At middle zoom, you will see individual ships, but individual planes and land units are hidden. Zoom out again. At maximum zoom, you see only the lead ship or squadron leader for each formation.

The highlighted area around your unit is the detection area. The light-colored area is the visual detection area. The darker-colored area is the radar detection area. Units detected by radar are displayed as unknown because only their position and type are known. Finally, the green area is the sonar area. Sonar is the only method capable of detecting a submerged submarine.

Use the cursor to select units and issue orders. When you place the cursor over a unit, its details appear in the target window in the upper-left corner. Put the cursor over the Fletcher-class destroyer berthed next to your Clemson and press the indicated button to select it. Zoom in one level to better see the individual ships. You can also use the cursor to issue orders to your currently selected unit. Press the Target button to order the unit to move to the indicated point.

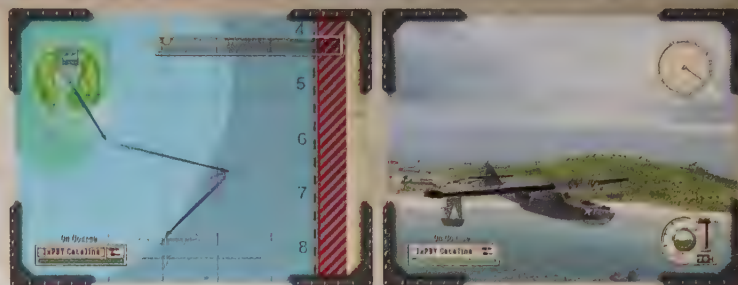
Order the Fletcher-class destroyer to move to the yellow waypoint. A blue line shows you where it is going.

The Fletcher has detected an enemy ship. To order your destroyer to attack, press the Target button while the cursor is over the enemy ship. The red line indicates an attack order, which means your unit will move into range of the targeted unit and engage. A unit ordered to attack will circle the enemy and continue to fire until the target sinks.



Blue lines show movement orders; red lines show attack orders.

Another way to select friendly units is by pressing the Switch Unit buttons to cycle through units. Do this to select the Catalina flying boat. You can create a navigation path by pressing the Target button multiple times. Give the Catalina a navigation path between the three waypoints, starting with Waypoint 1, then Waypoint 2, and ending with Waypoint 3. The Catalina will fly along the path you have created.



You can set waypoints for your units to travel through. The unit such as this PBX Catalina will automatically fly through these waypoints, then circle once they reach the final point.

If you want to cancel a move or attack order, press the Cancel button. An airborne plane circles when you cancel its order. Or you can tell it to circle one of your ships by placing the cursor over the ship and pressing the Target button. That command is useful for putting up CAP (combat air patrol) over your ships or land bases. Order the Catalina to circle your Clemson. Press the Map button to exit the Map screen.

Dealing with Emergencies Onboard

November 23, 1941

This tutorial explains how ship damage works and how you can use the Repair screen to fix it.

The Repair Screen



The Repair screen

The Status panel

This is the damage and repair tutorial. If you end up in a shooting war, you'll need to know how and what to do if your vessel comes under fire. Press the Repair button to open the Repair screen. The Repair screen allows you to review your ship's damage status and also gives you the ability to do something about it.



Leak icon

Rudder icon

Engine icon

Fire icon

The Status panel is located on the screen's right side. It shows you the location and severity of the damage on your ship. The Leak icons are located along the sides of your ship graphic. If your ship has suffered a leak, it takes on water. Take on too much water and your ship will sink. These icons display the location and severity of a leak on your ship.

The Component icons are located within the ship graphic. Each of these represents one of your ship's systems. The first is the rudder. If the rudder gets too damaged, you'll be unable to steer your ship. Next is the engine room. A malfunction here means your ship will stop moving. Fire icons show if there is a fire on your ship. A fire raging out of control will eventually reach the ship's magazine or a fuel tank and cause them to explode. Another system, found only on carriers, is the flight deck. If the flight deck malfunctions, a carrier will not be able to launch or land any aircraft.

The Flooding panel is located in the screen's lower center. It shows you how much water has flooded into your ship from a leak. If the flooding indicator reaches the top of the panel, then the ship will sink.



The Hull Damage display

The Hull Damage display is located above the Flooding panel. Any hit your ship takes will damage the hull. Once the hull is completely damaged, any other hit will automatically cause a leak that will sink the ship.



The Flooding panel

The Crew panel is located along the screen's left side. It allows you to assign crew members to repair a specific area of the ship. By default, your entire crew is at general quarters. This means they will try to repair all damage evenly. However, you can order them to focus their efforts on a specific part of the ship.



The Crew panel

Repairing Damage

To illustrate how this works, let's simulate a torpedo hit on your ship. A torpedo always hits below the waterline, which means it always causes a leak on your ship. When this happens, the Leak icon appears and your ship takes on water. Put all three crew members on water repair duty. Putting crew members on a specific repair duty will significantly affect how quickly that duty is completed. However, other repair tasks will be carried out more slowly as a result.

The Leak icon will clear, meaning that the crew have stopped the leak by sealing off compartments in the ship. They will then start pumping as much water from the ship as they can. However, they will be unable to pump water out of compartments they have sealed. If your ship suffers too many leaks, eventually the crew will be unable to seal off enough compartments to prevent your ship from sinking. As you can see, damage below the waterline is very dangerous.

Now let's simulate damage above the waterline as can be caused by artillery and bombs. The warning icon on the screen's right side shows that your ship has suffered an engine malfunction as a result of this attack. This means your ship has lost its ability to maneuver. Go back to the Repair screen to fix it. The Engine icon is flashing red, which means the engine has taken 100 percent damage, resulting in a malfunction.

Repair engine and steering malfunctions by assigning crew members to repair duty. Put some men on maneuver repair. When the icon stops flashing, it means the engine has been repaired. But the icon remains red, meaning there is still damage to the engine—another hit can easily cause another malfunction.

When an icon is red, a component has more than 50 percent damage. A yellow icon means that a component has less than 50 percent damage. A clear icon means that a component is not damaged at all. By repairing components before they malfunction, you will greatly enhance your ship's performance in combat.



Extinguishing Fires



A fire onboard ship is dangerous. Put it out quickly.

Now let's simulate a fire drill. A bomb hit has started a fire on your ship, which you can see both physically and from the Fire icon on the screen's right side. Fire is one of the sailor's greatest enemies. Let's extinguish it—pronto. Go

to the Repair screen. Fire works differently from other malfunctions. Any hits on the flammable parts of your ship can cause a fire. Once a fire has started, that section will continue to take damage until it is put out. If the burning section takes 100 percent damage, an explosion will occur, which almost certainly destroys the ship.

A flashing yellow icon indicates that the fire is not too severe; a flashing red icon indicates that there is a great danger of an explosion occurring. Put that fire out now by assigning crew members to fire repair.

Damage to Weapons



Weapons Status panel

The last thing that can go wrong with your ship is weapons damage. Let's simulate a weapons malfunction. A bomb hit has taken out your front turret, which will reduce your effectiveness as a fighting unit. Order crewmen to repair the damage now. Go to the Repair screen. No Damage icon appears on the Status panel because weapon damage is shown separately. The light next to weapon

repair duty shows there is a problem. Order some men to weapon repair. When you have highlighted weapon repair, the Status panel will show you the damage status of all weapons on your ship. The icons you see represent the main turrets and the torpedo tubes.

As with other components, flashing red means that the gun is not working. Red and yellow icons mean heavy and light damage, respectively. With luck, you will never have to use the knowledge you have learned, but it is important that you are ready for anything.

Carrier Ops

November 25, 1941

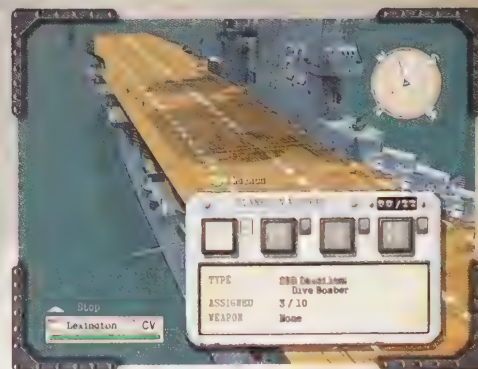
Learn how to operate a carrier flight deck to launch planes.

Aircraft carriers are like any other ship but have only defensive weapons. Their main weapon for attack is their air wing of fighters and bombers, which can be launched to attack all forms of targets. To launch planes, you must first access the flight deck. Press the Flight Deck button.

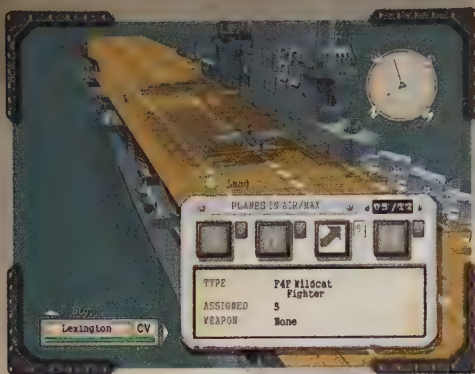


Carriers have the highest destructive potential of all ships. They are moving airfields.

The Flight Deck panel has opened in the screen's lower-right corner. This shows you the status of the carrier's squadrons. A carrier can launch up to four squadrons at any one time, but no more than a total of 12 planes. The number of planes you have in the air is displayed at the top of the Flight Deck panel. The four large icons represent the status of each of your four squadrons. The "H" icon means that all planes of that squadron are currently berthed in the carrier hangar. Below the Squadron icons are the squadron details, which show you the type and number of planes that make up a squadron and what armament they are equipped with in addition to their machine gun.



The Flight Deck panel



Launch a squadron of Wildcat fighters.

Highlight the Number Assigned setting and increase the number of aircraft in the squadron to five, which is the maximum number of planes for any squadron. Also shown on the assigned setting is the number of planes of that type you have in reserve belowdecks. Press the indicated button to give the launch order and get these planes airborne. The hangar elevator will start bringing the fighters up to the flight deck one at a time.



Never leave your carriers unguarded. They are weak if left alone. It is also a good idea to keep your carriers far away from the heat of battle.

While the Wildcats are launching, let's ready Squadron 1. This is a squadron of Dauntless dive-bombers, which are ideal for attacking all manner of surface targets. However, they currently have no armament attached to them. Highlight the weapon setting and equip them with 1,000-pound bombs. Different aircraft have access to different ordnance loadouts. Try experimenting with these.

Now that the Dauntless are armed and ready, let's find something for them to attack. There is a target cargo ship in the bay. Order them to bomb it. First, select the ship as the carrier's target. Close the Flight Deck panel and then move the camera to find the cargo ship off to your port side. Place the crosshairs over it and press the Target button. Go back to the flight deck. Now that the carrier has a target, you can order the highlighted squadron to launch and attack by pressing the indicated button. The Dauntless squadron will now launch and attack the cargo ship.



Target the cargo ship with your carrier. This also allows you to quickly send squadrons to attack it.

To launch aircraft, first highlight Squadron 3, which is composed of two F4F Wildcat fighters. These are ideal for protecting the carrier against air attack. Before we launch them, increase the number of planes in the squadron.

While they are doing this, let's go over the other commands you can perform on the flight deck. First, you can tell an airborne squadron to return to the carrier and land. Do this by highlighting a Squadron icon and press the indicated button until the icon

changes to the Land symbol. Once a squadron has landed, you can change the type and number of aircraft, as well as the ordnance they carry. The final command you use is the "jump to" command, which instantly puts you in direct control of any of the carrier's active squadrons. Use this command to see how the Dauntless are getting along. Highlight Squadron 1 and press the indicated button. You are now ready to command a carrier air wing.



The lessons you have learned in this tutorial also apply to land-based airfields and shipyards.

Fleet Formations

November 26, 1941

This mission explains how to switch between multiple units and organize your ships into formations.

This is the U.S. Navy fleet formation command tutorial. Now that you have mastered commanding a single vessel, it is time to learn to command a group of ships. For this tutorial, you have been entrusted with two ships—your Clemson-class destroyer plus a modern Atlanta-class light cruiser. The arrow next to the unit window indicates you have extra units to switch to. Press the Switch Unit buttons to cycle through your units and select the cruiser.



You have command of two ships for this training mission.

The Naval Academy

You can also switch units by placing the crosshairs over a friendly unit and pressing the Jump In button. Use this method to switch back to your Clemson-class destroyer.

When you have multiple units under your control, you can group them into a formation.

To attach one ship to another, position the crosshair over the other ship and press the Target button. Join the Clemson to the Atlanta using this method. When you join two ships together, the Formation bar appears above the unit window. It shows you how many and what types of ships you have in the formation. The highlighted icon represents the ship you are controlling, while the topmost icon represents the formation leader, which in this case is the Atlanta. If an icon has a gold border, then that ship is the key unit. You will fail the mission if it sinks. The Formation bar closes after a few seconds and is replaced by an indicator arrow pointing up. This shows you that your current ship is part of a formation. You can switch between formation members by pressing the Switch Unit buttons. Use this to switch back to the Atlanta.



Switch to take control of the Atlanta light cruiser.



Note

Follower ships will shadow their leader's movements.



The Command menu



The Formation screen

You are now in command of the formation leader. From here, you can access the Formation screen, which allows you to customize your units' position. To open the Formation screen, open the Command menu, press the Orders button, then select "formation." The Formation screen shows how the formation is arranged around the leader. The formation leader is highlighted in white while the ship highlighted in yellow is the one whose position you can change. If you have multiple ships in the group, you can

switch between them with the Switch Unit button. To change the ship's position in the formation, move the positional icon to the spot where you want the ship to move.

When you are done, press the Target button to confirm and exit this screen. Press the Cancel button to exit and cancel changes. Try repositioning your ship. In order to get the Clemson to move into its new position, the formation itself must be moving also. Get the Atlanta under way to see this happen.



Note

Customize your formations to best suit your actions. Use your follower ships to protect or escort the leader.



There is one more lesson to learn: how to get a ship to leave a formation. You can achieve this in multiple ways. One way is to give a follower ship a direct order such as a move or attack command. You can also use the Command menu to order a ship to leave a formation.



Order the Clemson to leave the formation.

Switch to the Clemson. Now open the Command menu and select "leave." For the formation leader, this command would change to "disband," which would completely break up the entire formation.



Tip

Try pulling in a screening force to use as a wall against torpedoes. This can be useful for protecting your carriers.



Taking Command of a Fleet

November 27, 1941

Learn how to give your ships commands and how to set standing orders.



For this exercise, you will command the light cruiser *Oakland*.

Target Selection and Command

In this training exercise, you will learn how to give orders to your ships, thus freeing yourself from needing to control your vessels directly. First, look at the target window, which appears in the screen's top-left corner whenever you center a unit under the crosshairs. Place the crosshairs over another unit to reveal the target window.



Since you can't directly control your ship's weapons during this exercise, you must give orders and let the ship's captain carry them out for you. Target the cargo ship ahead of you.

An active target is indicated by the brackets changing color. White brackets indicate an active target. White and gold brackets show that the active target is also a mission objective. If an active target is in range, then your unit will automatically start firing with any weapons systems that are not under your direct control. Clear a target at any time by pressing the Cancel button. Try this now. Notice that your ship stops firing.

The target window displays the unit's name, how far away it is, its general damage condition, and its ship class. U.S. units are blue and Japanese units are red. Set an enemy unit as an active target by pressing the Target button. Target the enemy cargo ship directly ahead of you.



Cycle through targets using the Target button.

You can also press the Target button to cycle through all detected targets. Every time you press this button, you will select the next nearest target. Press the Target button until you target the most distant cargo ship located off your starboard (right) side. This ship is out of range, however. You can either drive the ship closer to the target or you can use the attack command to get the ship's captain to do this for you. Hold down the Orders button and select "Attack." The ship's captain will move the ship closer to the target. Notice the order above the unit window in the screen's lower left corner lists "Attack" as the *Oakland's* current order.

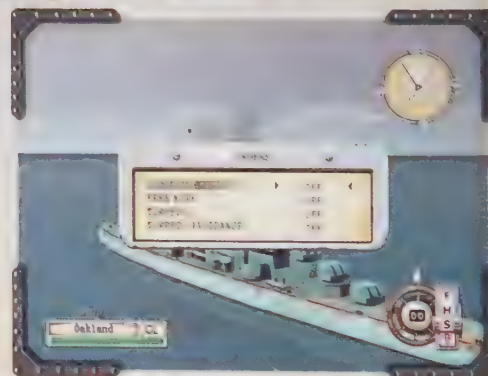


Tip

Press the Attack button to quickly cycle through available targets to make a quick selection.

Ship Behavior

In addition to giving a ship specific orders, you can also give it standing orders of how you want it to behave. Press the Orders button and select "Orders." A standing order permanently affects how a ship behaves.



The Orders panel lets you give standing orders to a ship.

There are four types of standing orders you can utilize.

1. Torpedo avoidance determines whether or not the ship automatically tries to evade an incoming torpedo.
2. The torpedo setting determines whether or not a ship automatically fires torpedoes at targeted enemies. The default is Off.

- Free move determines whether a ship is free to initiate its own attacks against targets.
- Free fire affects whether a ship can select its own targets.

Set free fire to On; the ship's captain will select a target for his ship and commence firing on it. Now set free move to On. The ship's captain begins an attack maneuver. You can override the captain's attack order at any time by taking control of the ship's helm. Try this and notice that the orders status over the unit window has changed to "Cruise," indicating that you are in command of the ship.



By setting the standing orders to enable free move and free fire, the captain of the light cruiser can set his own targets and maneuver the ship to attack.

Note

Torpedo usage is disabled on your ships by default. However, if you want your ships to make their own torpedo attacks, especially when destroyers are part of a larger formation, enable this standing order or take direct control of those ships when you want to launch torpedoes.

Piloting a Plane

November 28, 1941

Welcome to pilot training. This tutorial teaches you the basics of flying and aerial combat.



It is time to take your training to a higher altitude.

Flight Control

This training exercise teaches you how to control a plane and how to dogfight and land. You begin with an F4F Wildcat fighter, guardian angel of the carrier fleet. First, try looking around. You need 360-degree awareness for dogfighting. Follow the indicated controls to do this.

It's time to get this baby airborne. Set your throttle to maximum. As the plane approaches the end of the deck, point the nose of your plane up (or increase the pitch of the plane) to gain altitude and take off. Lower the pitch to level out. The controls for flying are fairly simple. Use the pitch controls to climb or dive. You can also roll the plane to the left or right for banked turns when combined with pitch controls. Use the rudder to yaw to the left or right for flat turns. Notice that when you use the rudder, the plane's nose dips down. Therefore, to maintain level flight during a rudder turn, pitch the nose up a bit. After trying out the controls, fly to the point marked with the yellow icon to continue.

Plane Instrumentation



While you are flying a plane, the helm changes to aircraft instrumentation. The circle in the center is your artificial horizon. This is useful when flying through clouds or other times when your visibility is decreased. The blue is the sky

and the green is the ground or sea. When flying level, the line between the two will be in the center. Rolling the plane makes the horizon line move from horizontal. Diving and climbing are indicated by either more green or more blue, respectively.

Around the artificial horizon is the altimeter. When the red triangle gets into the pink zone at the gauge's bottom, you are getting close to sea level and in danger of crashing. Remember that not all terrain is at sea level, so watch out for hills and high terrain. Finally, your airspeed is shown below the throttle.



Get your plane in the air and try out the controls.



Note

Depending on your platform, the controls for planes may vary. You can also edit the control scheme by pausing the game and selecting the Options menu, then Controls, where you can invert the y-axis for plane control as well as other options.

Gunfire Control



Shoot down the dummy targets.

It's time to learn to dogfight. A C-47 Dakota is going to drop targets. Shoot down three of them to pass this phase. The targets are indicated by a yellow mark. Press the Zoom button to try first-person mode. Press the Zoom button again to return to third-person view. Slow down a bit so you don't approach the targets too quickly. This makes them easier to hit. The crosshairs indicate when your shots are on target with the little arcs that appear around the central circle. This applies only to the AA crosshair.



Tip

Be sure to watch your airspeed. Your plane will stall at low speeds. This can occur during a dogfight, especially if your plane is in a climb. If this happens, give 'er full throttle to increase speed and pull out of the stall.

Landing



From the Command menu, you can order your plane to land automatically.

Let's get your plane back on the carrier. You can fly it manually, or you can order your plane to land. Go to your Command menu by pressing the Order button, then choose "Land." To land manually, you must approach from the rear of the carrier, where there are arrestor wires to catch you. You cannot land from the front.

Line up your plane with the rear of the carrier and reduce your throttle to about half as you approach. Don't come in too steep; you want to stay fairly level as you come down on the flight deck. When you are almost over the deck, cut your throttle all the way and ease 'er down. If you do this correctly, the plane taxis to the elevator and is lowered into the hangar. If you came in too fast or high and don't catch the arrestor cables, increase throttle and altitude and come back around for another attempt.



Come in slow and level. You need to touch down on the rear part of the deck where the arrestor cables are located; these will catch your plane for a landing.



Aerial Ordnance



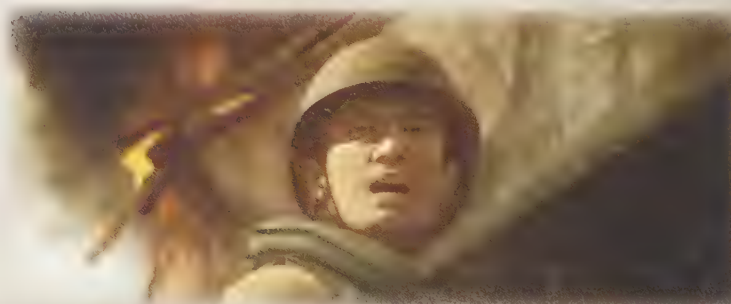
November 30, 1941

Learn how to conduct bombing raids on surface targets.



Here is your chance to attack ground targets with four different types of planes.

In this training exercise, you will learn the four main ways to attack surface and ground targets from the air. Strike aircraft are the longest-ranging and most powerful way to engage a target. In fact, a few planes can easily sink the most powerful battleship.



Level-Bombing

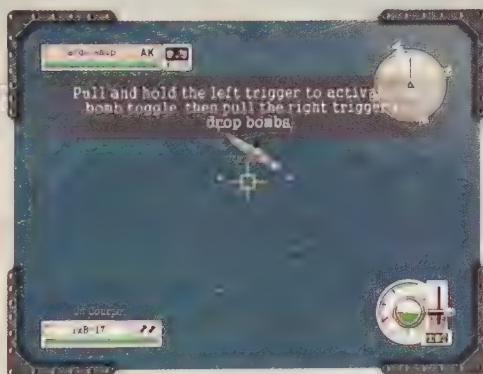
First, we begin with level-bombing, which is used by medium and heavy bombers such as the B-17. They drop large numbers of bombs onto a target. However, they must be flying straight and level to do this. The bombs they use are effective against all targets.



Fly your bomber directly toward the target while maintaining the same altitude.

Try bombing the cargo ship positioned below your bomber. Press and hold the Bomb Mode button to display the bombing reticule below you. When the reticule is pointing at the target, press the Fire button to release your bombs. Notice that your bomber releases all of its bombs at once. This is a technique known as "carpet bombing," and it increases the chance of a hit. It is also a good idea to fly at the highest possible altitude when level-bombing so as to avoid enemy AA fire from below.

The bombing reticule indicates where your bombs will hit. You can still control your plane, but limit it to rudder controls left and right so you keep it flying level.

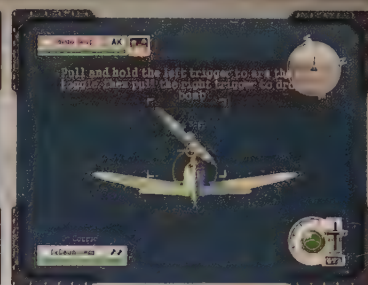


Tip

Hold down the Fire button when dropping ordnance to visually follow the bomb to the target and watch the hit. This also works for torpedoes.

Dive-Bombing

The other type of bomber is the dive-bomber, like the SBD Dauntless, which you now take control of. Dive-bombers carry only a single bomb, but they can dive down onto a target before they drop it, resulting in far higher accuracy. This makes them particularly useful against moving targets such as ships. Try to perform a dive-bomb maneuver on the cargo ship below you. Get as close to the target as possible before releasing the bomb; this increases the chances of a hit. Remember to leave time to pull out of the dive.



Use your view controls to watch your target below. Then put your bomber into a dive, keeping the bombing reticule centered on the ship. Drop your bomb as close to the ship as possible.

Press the Bomb Mode button to see the bombing reticule. This lets you see where the ship is below you. However, don't drop the bomb yet or you will be level-bombing. Use your Look controls to look straight down below your dive-bomber. When the ship is almost directly below you, lower your plane's nose so you are diving down on the ship. Press the Bomb Mode button and use the rudders and pitch controls to line up the reticule on the ship's center. Wait until the last second, then drop the bomb, holding down the Fire button to watch it hit.



Tip

As soon as you get control of the dive-bomber, put it into a climb to gain some altitude. This gives you more time during the dive to line up your target. When piloting a dive-bomber in combat, you want to come in high, above the enemy AA gunfire, then dive down quickly on the target before the enemy can damage your plane.

Torpedo Bombing

The final type of bomber is the torpedo bomber, such as the TBF Avenger you now get to fly. Torpedoes are the best weapon to use against ships, as they cause damage below the water-line. However, you must drop torpedoes while you are flying level and below an altitude of 100 feet; otherwise they detonate when they hit the water. Perform a torpedo run on the cargo ship. Torpedoes are dropped just like bombs, but you won't see a reticule. Remember to fly low. Press and hold down the Bomb Mode button to arm the torpedo. Press the Fire button to drop it.



Line up your plane with the target and hold down the Bomb Mode button to arm the torpedo before you launch it.



A solid hit!



Tip

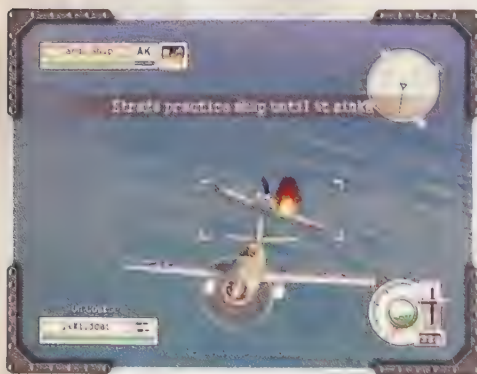
Reduce your throttle to about half while making a torpedo run. When flying low, be careful not to crash into the sea. Approach your target from the side to give you a bigger area in which to hit. Use the rudder controls to aim at the target. If the target is moving, aim at the ship's front and get to within 0.1 nautical miles (NM) before dropping to improve your chance of hitting it.

Strafing



Dive down on the target when strafing to cause more damage.

You are now in control of an F4F Wildcat fighter. Strafe the cargo ship below you until she goes down.



After making a run, fly away from the target for a bit before turning around. This gives you more time to line up your target and reduce the amount of time you are within range of the enemy AA guns.



Tip

When strafing a ship, it is best to come down at a steep angle so you can hit the deck rather than coming in from the side and hitting the hull. The deck offers less protection to the enemy ship's systems.



Commanding Squadrons



December 2, 1941

In this mission, you learn how to command a plane squadron.

In this exercise, you have command of a squadron of P-40 Warhawks.



Squadron Command



Target the cargo ship and order your squadron to attack.

Here you learn how to give tactical commands to the planes in the squadron you control. Like with ships, press the Target button to make your plane squadrons target enemies. Use this method to target the cargo ship in front of you. When the squadron has

a target, you can give the squadron an attack order from the Command menu or when you begin your attack run.

Your squadron will also attack the target on its own when you get close to it. Try flying close to the cargo ship and watch your squadron. The order status has now changed to "strafe" to show that your wingmen are attacking the target. The wingmen continue to attack the target until they sink it or the squadron leader gets too far away. You can stop your wingmen from attacking at any point by giving them the "regroup" order from the Command menu; they'll break off and resume their formation.

The Naval Academy



Use the regroup order any time your wingmen get too far away from you.



Tip

Give the land order to units that run out of armament. This is especially important for bombers that have dropped their ordnance. The sooner they land, the quicker you can get them back up in the air for another attack.

Escorting

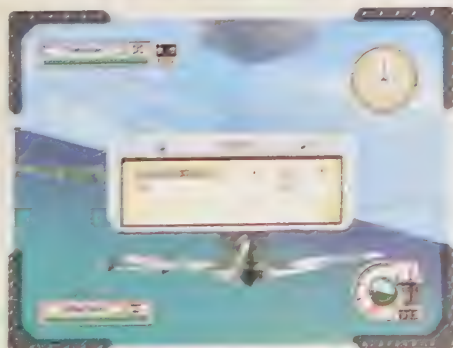
There are certain orders that are available only to plane squadrons. One of these is the escort order. With this, you can instruct a plane squadron to escort a surface unit or another squadron and protect them against enemy attackers. To do



Go to the Map screen to order your squadron to escort the destroyer.

this, open the Map screen. On the map, you can see your squadron and a friendly destroyer. To order your squadron to escort the destroyer, place the crosshairs over the destroyer and press the Target button. Your squadron now controls the skies above the destroyer wherever it goes, and will attack any enemy planes that come close to it.

You can also give planes standing orders, such as ordering them to free fire so they attack enemy units on their own. Unlike ship units, planes do not have the ability to turn off their free move ability since they can attack only by moving toward the enemy target.



The Orders panel for planes has only two standing orders—free fire and CAP.

Planes do have the CAP (combat air patrol) ability. While on CAP, the squadron will always stay close to the assigned unit and protect it.

Let's order your squadron to CAP. First press the Orders button to bring up the Command menu. Select "orders" to open the Orders menu. Set CAP to "on." Your squadron will now always stay within two miles of their assigned unit and will only attack enemies that come within that range of the unit. If there are no enemies within that range, then they automatically return to patrolling the skies above the assigned unit. This command is very useful for protecting your surface units from air attack; you can also use it to provide a fighter escort for your bombers.

Note that selecting CAP automatically sets the squadron to free fire because otherwise the escorting squadron would not open fire on the enemy. You now have the knowledge to take command of squadrons of planes and use them effectively against the enemy.

Squadrons on CAP circle the unit they are guarding and shoot down any enemy planes that come into range. In addition to ships and bombers, you can also assign CAP over airfields and shipyards.



Tip

If you have a carrier or airfield, the first thing you should do for most missions is to launch some fighters and put them on CAP over the carrier or airfield. If the enemy sends in a strike while you are launching other squadrons, you'll have some protection airborne. You can always give your fighters other orders later if needed.



Silent Hunting



December 4, 1941

Welcome to the submarine school. Learn everything you need to know in order to join the Silent Service.



For your final training, you will command a Narwhal-class submarine.

Submarine Warfare

During this training, you will learn all aspects of submarine warfare. You have command of a Narwhal-class submarine for this exercise. On the surface, she behaves pretty much as a normal ship does and possesses forward and rear firing torpedo tubes as well as AA and artillery armament. However, her ability to submerge beneath the waves is what makes this kind of ship special.

Submarines can operate at four depth levels, which are shown on the depth indicator in the screen's bottom-right corner. The top level is the surface—where the sub is at the start. Dive now by pressing the indicated button to set the depth indicator to the second depth level.

The Submarine Helm

The helm for submarines is similar to that found on ships, but it has a few additional items. While the throttle, speed readout, and rudder indicator are the same, the wheel has been replaced by a depth gauge. The red marker on this gauge indicates the submarine's current depth. When you give the order to change depths, a black marker indicates your order and the red marker then moves toward your ordered setting as the submarine rises or dives. The depth gauge shows the four depth levels, with depth level 4 containing a reddish hue—an indication that this is below the safety recommendations and that your sub will take damage from the extreme pressure at this depth.



The Submarine Helm (cont'd)

To the depth gauge's left is the oxygen meter. This informs you of the amount of oxygen in the sub while submerged. Once the black needle enters the red area, you must begin making plans to surface—hopefully somewhere relatively safe. If the needle reaches the gauge's end, your sub surfaces automatically. Be sure to watch your oxygen meter while submerged—especially during an engagement, when you're often focused on other things.

When the submarine is under the waves, it is invisible to other units and can only be detected by units with sonar, such as destroyers. The submarine is now at periscope depth. At this depth you can raise your periscope (press the Zoom button), which is used to aim torpedoes and to observe your surroundings. The periscope works just like binoculars, except it can't look up or down.



Dive, dive, dive.

Use the periscope to aim at the target ship directly ahead of you, and try to sink it with torpedoes. Since the ship is not moving, aim at it and fire off two torpedoes. It is usually a good idea to fire them at different parts of the ship so you can create multiple breaches to the hull.

Once the torpedoes hit, watch the target window's damage indicator—it tells you how quickly the other ship takes on water and damage until it finally sinks. Be careful when your periscope is raised. Other units can see it visually and know your location—even if they don't have sonar. Lower your periscope to continue.



Aim at the cargo ship and sink it with a couple of torpedoes.

The Naval Academy

Note

After you have identified a target visually while on the surface or through the periscope while submerged, you can then use your sonar for aiming your torpedoes even if the periscope is lowered. Your crosshairs still appear while in the underwater view. Use the Target button to select a target while your crosshairs are over it, then fire torpedoes as you would on the surface or with the periscope. This method is very useful when maneuvering close to enemy ships since your periscope can reveal your position. The periscope can also be broken off if you sail under a ship with it raised or under ships that have deep drafts while at periscope depth.



If you don't need to use the periscope or fire torpedoes, drop to depth level 3. You are safer from attack at this depth. This is a good place to be while waiting for your torpedo tubes to reload.

Dive down to depth level 3. Once you are deeper than periscope level, you cannot use your periscope and you cannot fire torpedoes. Depth level 3 is useful for skulking around, making it harder for units to hit you with depth charges.

Depth Charges

A destroyer now performs a simulated depth charge attack on you. Remember, a destroyer can use its sonar to detect a submerged submarine. If your submarine is detected on sonar, you will hear a distinctive pinging noise. This means the destroyer knows your location. View the destroyer's sonar range by looking at the Map screen at the closest zoom.



A destroyer approaches dropping depth charges.

As the destroyer approaches, it begins dropping depth charges. Order your sub to dive to depth level 4. This is the lowest depth level and is below the Navy's recommended safe level of operation. The sound you hear is

your pressure hull slowly rupturing. Stay down there too long and your hull will implode. However, at this level you become invisible to sonar, giving you a chance to escape from enemy detection. Be careful though—it is a risky tactic. Go ahead and take her back up to depth level 3 now that the destroyer has passed by.



Tip

Approach enemy destroyers from behind to avoid their sonar.



The last thing you need to know about submarines is that they have a limited oxygen supply. The O₂ indicator in the bottom right shows you just how much air you have left. Oxygen slowly depletes while you're submerged, meaning that you must occasionally surface to replenish your air supply. If your air supply reaches a critical level, your submarine will automatically surface to prevent the crew from suffocating. An essential skill for any submariner is timing when to submerge for an attack and still leave enough time to escape. You don't want to surface next to an enemy battleship.



The surface is the most dangerous place for a submarine if there are enemies around. However, travel on the surface when in the clear. Then submerge as soon as enemy ships or planes come into view. That way, you can start an engagement with a full tank of oxygen.



Note

While you do not use them during this training exercise, submarines are also armed with AA guns and artillery for use on the surface. However, every other ship in the game has the advantage in gunnery firepower against a surfaced sub. If you have to surface due to low oxygen, get ready to man these guns to defend your boat until you have enough fresh air to submerge again.



Ships

Surface ships make up a majority of a navy. They range in size from the smallest landing craft to the largest battleship. In fact, for millennia, the surface fleet was the navy. There were no planes or submarines.

The first ships were built for trade. They would carry merchants' cargo up and down rivers and along the Mediterranean coastlines. Their first military role was to carry troops. These early naval vessels were constructed of wood or other buoyant materials that could be found and fastened together. Propulsion was provided by men pulling oars and wind caught by a sail. When ships of opposing navies engaged one another, they tried to ram the enemy's ships, use archers to kill the enemy crew with arrows, or come in close and send soldiers across to fight as if they were on land.

The first major improvement to naval technology was gunpowder—which would eventually allow for cannons that could sink enemy ships from a distance. Yet naval vessels were still subject to the wind and the muscle of its crew on the oars. It was not until the early nineteenth century that steam power began to propel ships across the world's oceans. As the gunnery became more destructive, and technology allowed for new means of using metals, wooden ships were first covered with iron armor plating. The American Civil War saw the debut of the ironclad ship. While the battle between the USS *Monitor* and the CSS *Virginia* ended in a draw, the death knell of wooden ships had sounded.

Eventually ships were constructed completely of steel. The HMS *Dreadnought* represented the next leap in technology. Dreamed up and commissioned by Sir John "Jackie" Fisher, the First Sea Lord of Great Britain, the *Dreadnought* was the first modern battleship. She was powered by a steam turbine, making her faster than any comparable warship, and she was protected by thick armor that ran in a belt around her sides.

Another important aspect of the ship was the design for main batteries of large-caliber guns rather than an assortment of various calibers. The *Dreadnought* was designed to sink other large warships. As soon as she set sail, all warships around the world became obsolete. The race to build these new large gun battleships continued up to World War I. The only main engagement between the British and German fleets of battleships, the Battle of Jutland, ended in a draw. The anticipated decisive naval battle did not occur.

Following the war, the major powers negotiated a series of naval treaties to prevent another naval arms race. Limits were placed on the size of navies, and maximums were set on how large certain types of ships and their weapons could be. Consequently, the three main navies of the time—the British, American, and Japanese—all built to the limits set by the treaties. For example, the Washington Naval Treaty of 1922 set a ratio of naval tonnage for the three main naval powers at 5:5:3, respectively. Japan was limited to only 60 percent of what the British and United States could have because the two had to divide their fleets between the Atlantic and Pacific while Japan could concentrate in the Pacific.

However, as Japan became involved in the Sino-Japanese War and felt the need to build up the navy for a possible war against the West, it withdrew from the treaty in 1934—two years before it expired anyway. After war broke out in Europe once again with Germany's invasion of Poland in 1939, America knew it needed to build up its navy. However, because it took time to construct ships and convert a peacetime economy and industry to a wartime footing, most of the newer U.S. naval warships were not ready for battle until mid-1942 or later, giving the Japanese an early advantage.

World War II saw some major changes in naval warfare. Due to the greater role of airpower in naval tactics, the mighty battleship now took on a support role for the aircraft carrier. As a naval commander, you will have the opportunity to control individual ships and entire fleets.

There are several different types of ships. Each is designed for a specific function in naval operations. However, during combat, a ship may be required to carry out a task for which it is not really suited—and it must do it to the best of the crew's ability. Therefore, it is vital that commanders understand the ships under their control. The following ships are organized by type, nationality, and then class.



Patrol Torpedo Boats

Sometimes called the "brown water navy," the small boats used to patrol the rivers and coastal areas have always played a minor role in naval operations. These boats are commanded by junior officers and are not very desirable commands. However, they serve a necessary and vital role. Patrol torpedo boats, commonly referred to as "PT boats," were useful in the Pacific due to the number of small islands and atolls that were fought over. PT boats could move through shallow waters to scout for the enemy and harass larger forces. Their primary role was to attack enemy shipping such as transports. However, at times they would be called on to engage larger warships because they were the only thing available.



U.S. PT Boats

Elco PT Boat



Stats

In Service: 1942
Displacement: 56 bwt
Dimensions: 80' x 20'8" x 5'3"
Crew: 12-14
Speed: 50 kt
Armor: 4

Weapons

M2 .50 AA gun (2)
 20 mm Oerlikon AA gun (1)
 Torpedo tubes (4)
 Depth charge racks

History

There are several PT (patrol torpedo) boat designs in service with the U.S. Navy, but the most common is the 80-foot-long model built by New Jersey's Elco Boat Company. These sleek, very fast boats—well-armed with torpedoes, depth charges, and 20 mm antiaircraft guns—are capable of engaging any target, be it in the air, on the sea, or below it. However, they are very vulnerable to enemy fire, particularly machine-gun fire, and are best employed to harass enemy merchant shipping or to attack submarines.

Ships in class: N/A

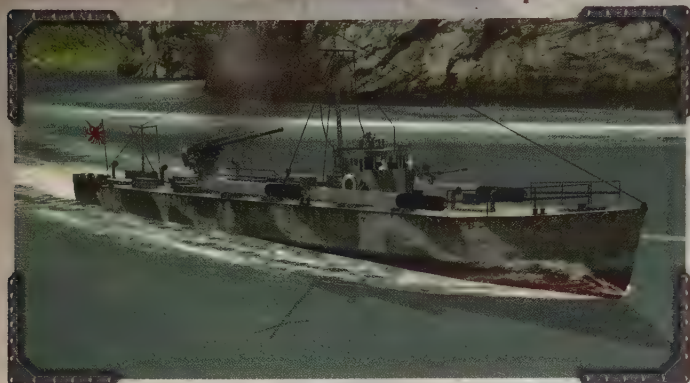
Notes

During the first two campaign missions, you will command a PT boat. Since these plywood boats can be sunk by machine-gun fire alone, you must keep moving. With the exception of planes, PT boats are the fastest units available to you. Use speed to your advantage.

The PT boat's main weapon is the four torpedo tubes—two on each side. These tubes fire torpedoes at an angle from the boat's bow; however, after traveling a short distance, the torpedoes will turn to the bearing at which you aim when you fire. In addition, PT boats can be used to sink submarines. While they don't have sonar, if a destroyer or recon plane is nearby, they can use them to locate the sub, then quickly move in to drop depth charges on the position. The only other armament the PT boats have are AA guns, which are good for hitting low-flying aircraft and sinking enemy landing craft.

Japanese PT Boats

Japanese Patrol Boat



Stats

In Service: 1938

Displacement: 87 brt

Dimensions: 114' x 15'
x 6'9"

Crew: 9

Speed: 50 kt

Armor: 4

Weapons

5"/50 DP gun (1)

13 mm/76 AA gun (1)

Torpedo tubes (2)

Depth charge racks

History

The Japanese have a variety of small coastal vessels that provide a similar role to the U.S. Elco PT boat. The Japanese versions are not as fast or maneuverable as the Elco, but they do mount a 5" dual-purpose main gun that packs a punch against both air and surface targets. In addition, they also mount machine guns, depth charges, and torpedo tubes, meaning they can pose a threat to any target.

Ships in class: N/A

Notes

The Japanese patrol boats are larger than their American counterparts, and their single artillery gun gives them some additional firepower that can be used to take on transports and land ships—even destroyers. However, since you can only fire one round at a time, you must make each shot count.



Destroyers



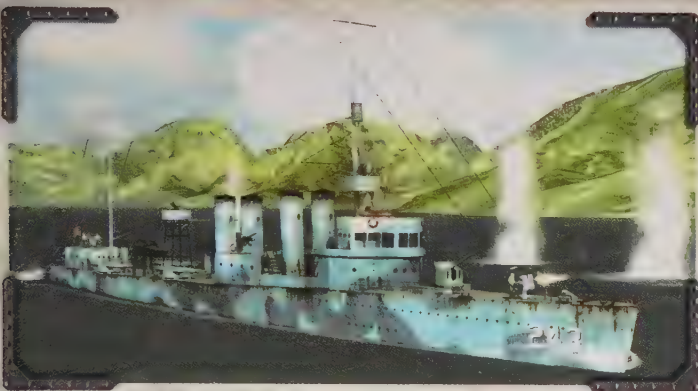
Destroyers are the smallest warships in a fleet (PT boats and submarines are considered boats). Often armed with small-caliber guns, their main job is to either patrol an area or escort larger warships. While their main guns are no match for larger ships, destroyers carry torpedoes that can be launched off to the sides rather than straight ahead. These torpedoes can cause some serious damage to bigger ships—including battleships. Therefore, a destroyer coming at your battleship or carrier is a threat and could sink your ship if you don't deal with it.

However, while it can be fun to run at full speed toward a battleship to launch a spread of torpedoes, the destroyer's main strength is in detecting and attacking enemy submarines. Destroyers are the only surface ships that carry sonar, which allows them to locate submerged subs. Also, all destroyers are armed with depth charges used to sink those subs. Keep your destroyers away from your main ships so they can detect enemy subs before they can sneak in and attack.



U.S. and Allied Destroyers

Clemson Class



Stats

In Service: 1919

Displacement:
1,215 brt

Dimensions: 314'5" x
31'8" x 9'10"

Crew: 114

Speed: 40 kt

Armor: 50

Weapons

4"/50 gun (4)

20 mm Oerlikon AA
gun (1)

40 mm Bofors AA
gun (1)

Torpedo tubes (8)

Depth charge racks

History

These venerable destroyers have been in service since 1919, but they are still worthy ships that are useful in a variety of roles. They carry a depth charge launcher, making them capable of engaging submarines, and they feature a large number of torpedo tubes, which give them a powerful punch against larger ships. Unfortunately, they are quite weak in an anti-aircraft role, thanks to their small number of AA guns and the fact that they do not mount any dual-purpose guns.

Ships in class: Gamble, Kane, Parrot, Tucker, Walke, Wordern

Notes

The Clemson-class destroyer is only good against smaller ships. With its 4" gun, it even has a tough time taking on other destroyers. While it is good for going after subs, it is weak against air attack with only two AA guns. Furthermore, due to the guns' positioning on the ship, there are some arcs that only one of the guns can fire into—such as toward the ship's bow or stern. Few of the Clemson-class destroyers ever saw combat during WWII; most were decommissioned a decade early due to naval treaties. Some were also given to the British in 1940 in exchange for military bases. The British needed them for their antisubmarine capability in order to deal with the German U-boats in the Atlantic.

Fletcher Class



Stats

In Service: 1942

Displacement:
2,924 brt

Dimensions: 376'5" x
39'7" x 13'9"

Crew: 273

Speed: 40 kt

Armor: 50

Weapons

5"/38 DP gun (5)

20 mm Oerlikon AA
gun (4)

28 mm quad AA gun (1)

Torpedo tubes (6)

Depth charge racks

History

The Fletcher class has a state-of-the-art destroyer design that came into service in early 1942. Much larger than normal destroyers, it is nearly comparable to a light cruiser both in size and armament. Armed with the new dual-purpose 5" guns, it is particularly strong in an AA role, though it is also a formidable submarine hunter thanks to its dual depth charge launchers. In addition, both its torpedo tube mounts can swivel to fire to either side of the ship, allowing it to unleash a salvo of torpedoes that can put down an opponent of any size. These are very potent warships.

Ships in class: Dewey, Jenkins, Monaghan, John D. Ford, Perkins, Hotspur, Sands

Notes

The Fletcher class is a much more powerful destroyer than the Clemson class. With its five 5" guns, it can take on other destroyers. It also has a lot more AA capability, which it can use to defend itself and the larger ships it escorts. This is mainly due to the ability of the 5" guns to fire at air targets and surface vessels. Fletcher-class destroyers were popular with their crews and served as the workhorse of the U.S. Navy.



Japanese Destroyers

Fubuki Class



Stats

In Service: 1928

Displacement:
2,090 brt

Dimensions: 378'3" x
34' x 10'6"

Crew: 197

Speed: 40 kt

Armor: 50

Weapons

5"/50 DP gun (6)

13 mm/76 AA gun (2)

25 mm/60 AA gun (6)

Torpedo tubes (6)

Depth charge racks

History

The Fubuki class was the first modern destroyer design. Entering service in 1928, her twin 5" mounts located in enclosed turrets and her triple torpedo launchers gave her firepower far greater than any other ship her size at the time. Since then, other destroyer designs have appeared that can match the Fubuki class, most notably the American Fletcher class. Nevertheless, these are still versatile and useful ships, and their dual-purpose 5" guns give them a very potent defense against attacking aircraft.

Ships in class: Akabono, Akigumo, Amagiri, Arashi, Hamakaze, Natsushio

Notes

The Fubuki class is comparable to the U.S. Fletcher-class destroyers. With one forward turret and two aft, the Fubuki does not have much firepower directly ahead. Therefore, when advancing on an enemy, approach at an angle so that your rear turrets can also engage. This may require a zigzag course but will allow you to cause more damage to the target as you close.

Minekaze Class



Stats

In Service: 1920

Displacement:
1,650 brtDimensions: 337' x
29'3" x 9'5"

Crew: 148

Speed: 40 kt

Armor: 50

Weapons

4.5"/45 gun (4)

13 mm/76 AA gun (2)

Torpedo tubes (6)

Depth charge racks

History

These ships were among the first to be completely designed and built by the Japanese, who had previously been using foreign designs and manufacturers. Entering the IJN as "first-class destroyers," the Minekaze class are considerably outdated now and have many shortcomings, including the small number of guns they carry (which are open mounted and have no armor protection) and very light AA armament. However, they do mount triple torpedo launchers, which make them a dangerous proposition for any large ship.

Ships in class: Harusame, Hatsushimo, Hayate, Natsugumo, Kasumi, Kawakaze

Notes

The Minekaze class has the same weaknesses as the Clemson class. They were designed for a time when aircraft did not pose much of a threat. Therefore, these destroyers are vulnerable to air attacks. Fighters with light bombs can sink them with a few hits since these destroyers can't defend themselves. The Minekaze's one redeeming quality is its torpedo launchers, so when engaging another destroyer or a larger ship, charge in at full speed to launch your torpedoes.

Cruisers



Cruisers are flagships for smaller fleets and can also serve as escorts to battleships and aircraft carriers. Armed with larger guns, they can cause much more damage than destroyers but are still no match for battleships. Most cruisers are armed with several AA guns, making them excellent for protecting the ships they are escorting. Position your cruisers toward any air threats to help prevent enemy bombers from getting to your larger ships. Some cruisers can also be armed with torpedo launchers, giving them some additional firepower and the ability to go after battleships.

U.S. and Allied Cruisers

Atlanta Class



Stats

In Service: 1941

Displacement:
6,000 brt

Dimensions: 541' x
53'2" x 26'6"

Crew: 650

Speed: 30 kt

Armor: 90

Weapons

5"/38 DP gun (16)

40 mm Bofors AA
gun (1)

20 mm Oerlikon AA
gun (8)

Torpedo tubes (6)

History

These modern light cruisers have only recently entered service. Originally designed to lead destroyer divisions, they carry a very large number of 5" dual-purpose guns, which gives them three times as much firepower as a destroyer. As a result, they make excellent anti-aircraft platforms, as they can put a tremendous amount of flak into the air. Unfortunately, because of the light shell fired by the 5" gun, they are unable to effectively engage heavier surface targets and generally struggle against any ship larger than a light cruiser. However, they do carry torpedo tubes, which give them a chance against bigger opponents.

Ships in class: Atlanta, Oakland, Ogala, Phoenix, Argonne, Sacramento

Notes

The Atlanta class is armed with the same gun as the Fletcher-class destroyers; they just have more of them. Therefore, they are at a disadvantage when taking on anything larger than a destroyer, including another cruiser. Luckily, the Atlanta class has torpedoes that help make up for the gunnery deficiency. Use these cruisers in the AA role when grouped with other ships.

Cleveland Class



Stats

In Service: 1942

Displacement:
10,000 brt

Dimensions: 610'1" x
66'4" x 25'

Crew: 1,255

Speed: 30 kt

Armor: 90

Weapons

6"/47 gun (12)

5"/38 DP gun (12)

40 mm Bofors AA
gun (4)

20 mm Oerlikon AA
gun (3)

History

These state-of-the-art light cruisers are just coming into service now at the start of the war, and they are probably the best ships of their type in the world. Their main battery of twelve 6" guns gives them very considerable firepower against any ships lighter than a battleship. This is backed up by twelve 5" dual-purpose guns, making for a broadside of awesome proportions. These dual-purpose guns also form part of an excellent AA suite, which affords the Cleveland heavy anti-aircraft firepower in every direction. Although they do not carry torpedo tubes and are thus useless against battleships and the like, the Cleveland class is superior as a carrier escort.

Ships in class: Cleveland, Denver

Notes

The Cleveland class has a lot more firepower than the Atlanta. With a total of twenty-four 6" and 5" guns, this cruiser can cause a lot of damage to light cruisers and destroyers and can put up a lot of AA fire against enemy planes. Since it lacks torpedoes, try to keep this cruiser at a distance from

the enemy in order to avoid torpedo attacks against it. The Cleveland class makes an excellent escort for battleships and carriers due to their AA capability. However, remember this is a light cruiser. Don't try to take on the Japanese cruisers, as many of them carry 8" guns.

De Ruyter Class



History

This Dutch light cruiser entered service in 1935. Carrying seven 6" guns, it is reasonably well armed for a light cruiser, and has the firepower to effectively engage any target up to heavy cruiser size. However, as it does not carry torpedo tubes, it is unable to engage battleships at all, and should not attempt to do so. The De Ruyter class is also quite weak against air attacks, as its A gun platform has a restricted fire arc.

Ships in class: *De Ruyter*

Stats

In Service: 1936
Displacement: 7822 brt
Dimensions: 561' x 51'5" x 16'4"
Crew: 437
Speed: 30 kts
Armor: 90

Weapons

6"/53 gun (7)
 28 mm quad AA gun (5)

Notes

The De Ruyter features a unique weapons arrangement. Its seven 6" guns are positioned in four turrets. There is a two-gun turret and a one-gun turret forward of the superstructure and a couple two gun turrets aft. The AA gunnery is uniquely positioned on an elevated platform in the middle to rear of the ship, preventing it from engaging enemy aircraft approaching from the front of the ship. Use this cruiser mainly for engaging destroyers and other light cruisers.

Northampton Class



Stats

In Service: 1930
Displacement: 9,300 brt
Dimensions: 600' x 66'1" x 23'
Crew: 621
Speed: 28 kt
Armor: 100

Weapons

8"/55 gun (9)
 5"/25 gun (4)
 28 mm quad AA gun (2)
 20 mm Oerlikon AA gun (4)

History

Commissioned in 1930, this class of heavy cruiser is powerfully armed, carrying nine 8" guns in triple turrets, along with a varied antiaircraft suite. However, they carry no torpedo tubes, which puts them at a disadvantage against heavier opponents—they are forced to engage solely with gunfire. Nevertheless, these are potent ships, ideally suited to carrier escort duty or as the flagships of a cruiser division. The Houston is currently (1941) serving as the flagship of Admiral Thomas Hart, commander in chief of the U.S. Asiatic Fleet.

Ships in class: Houston, Chester, Astoria, Minneapolis, Chicago, Cleveland

Notes

The Northampton class is the heavy cruiser for the U.S. Navy. Its 8" guns give it the firepower to take on other cruisers and all other ships except battleships. This makes it a great group leader for other cruisers or destroyers. While they are good as escorts for protecting other ships, they do not have the AA firepower of the U.S. light cruisers since its guns are not dual purpose.

York Class



Stats

In Service: 1928

Displacement:
10,500 brt

Dimensions: 575' x 58'
x 16'4"

Crew: 628

Speed: 28 kt

Armor: 100

Weapons

8"/55 gun (6)

5"/25 gun (4)

20 mm Oerlikon AA
gun (4)

Torpedo tubes (6)

History

Built in the late 1920s, these were the only heavy cruisers ever commissioned by the Royal Navy. They carry a wide range of armaments, including six 8" guns and torpedo tubes, meaning they are capable of engaging any surface target. However, as a result, they do not excel in any one area, which can make them less effective in a particular role than a specialized ship. In particular, their small number of torpedo tubes means that they struggle against heavily armored opponents.

Ships in class: York, Exeter

Notes

While the York class is a decent cruiser, it is the weakest of the heavy cruisers since it carries only six 8" guns as compared to the 10 carried by the Japanese cruisers. Furthermore, its AA firepower is not very impressive due to the lack of dual-purpose guns. This cruiser is best used against destroyers and light cruisers.



Japanese Cruisers

Kuma Class



Stats

In Service: 1920

Displacement:
5,832 brtDimensions: 532' x
46'6" x 15'9"

Crew: 439

Speed: 30 kt

Armor: 90

Weapons

5.5"/50 gun (7)

13 mm/76 AA gun (4)

Torpedo tubes (8)

History

These light cruisers are rather old now [1941], having joined the IJN in the early 1920s. They are somewhat obsolete, and this is especially noticeable in the small number of AA guns they carry, which makes them particularly vulnerable to air attack. Nevertheless, the 5.5" guns they carry fire a heavier shell than the U.S. 5" guns, which gives them an edge when battling other light cruisers or destroyers. They also carry a good number of torpedo launchers for engaging larger ships.

Ships in class: Kiso, Kizikami, Nagara, Naka, Kako

Notes

The Kuma class has more in common with a destroyer than other contemporary cruisers. Its 5.5" guns allow it to dominate enemy destroyers but put it at a disadvantage against cruisers. Its best tactics are to engage destroyers at a distance, but move in close against cruisers and larger ships so it can fire off a larger spread of torpedoes.

Mogami Class



Stats

In Service: 1935

Displacement:
13,440 brtDimensions: 649'10" x
66'3" x 19'4"

Crew: 50

Speed: 28 kt

Armor: 100

Weapons

8"/50 gun (10)

5"/40 AA gun (8)

13 mm/76 AA gun (2)

25 mm/60 AA gun (12)

Torpedo Tubes (12)

History

These heavy cruisers were built in the mid-1930s and were in gross violation of the London Naval Treaty, which specified a maximum tonnage of 10,000 for any new heavy cruisers. They have recently been refitted with 8" guns, giving them a hefty broadside that is a threat to any ship smaller than a battleship. They also mount a very respectable AA battery and two torpedo launchers on each side, making them versatile and powerful warships.

Ships in class: Mogami, Kumano, Mikuma

Notes

The Mogami class is very well rounded. It has good artillery ability for attacking other ships of its size and has torpedoes for larger ships. In addition, its AA firepower makes it a good escort for battleships and carriers, protecting them from enemy bombers.

Takao Class



Stats

In Service: 1932

Displacement:
15,781 brt

Dimensions: 661'9" x
68' x 20'9"

Crew: 773

Speed: 28 kt

Armor: 100

Weapons

8"/50 gun (10)

5"/40 AA gun (8)

13 mm/76 AA gun (2)

25 mm/60 AA gun (12)

Torpedo tubes (12)

History

These heavy cruisers came into service in the early 1930s but are still excellent examples of this type of ship. Mounting ten 8" guns, they are more heavily armed than comparable U.S. or British heavy cruisers. They also have a large number of torpedo launchers, which gives them the firepower to take down any adversary.

Ships in class: *Takao, Haguro, Maya, Atago*

Notes

The Takao-class cruisers are very similar to the Mogami class. They can either be used to go after enemy destroyers and light cruisers or provide protection as an escort for larger ships.

Tone Class



Stats

In Service: 1938

Displacement:
15,200 brt

Dimensions: 649'7" x
60'8" x 21'3"

Crew: 850

Speed: 28 kt

Armor: 100

Weapons

8"/50 gun (8)

5"/40 AA gun (8)

13 mm/76 AA gun (4)

25 mm/60 AA gun (6)

Torpedo tubes (12)

History

The Tone class is very unusual among heavy cruiser designs—all eight of the 8" guns are mounted in turrets at the ship's front. Although this gives them a powerful salvo when attacking head-on or broadside, it does mean they have no weaponry covering their rear, which gives the enemy the opportunity to sit in this blind spot and attack unchallenged. Nevertheless, they possess good antiaircraft capability, and, like all Japanese heavy cruisers, carry a sizeable amount of torpedoes.

Ships in class: *Tone, Nachi, Chikuma, Suzuya*

Notes

While not as powerful as the Takao- or Mogami-class cruisers, the Tone can still take on destroyers or light cruisers. With all of its turrets toward the ship's bow, it can retain maximum firepower as it closes with an enemy—a maneuver that also reduces its target size and makes it harder to hit. Once in range, the Tone class can make a quick turn and launch a large spread of torpedoes. The challenge of commanding a Tone is the inability to attack targets in your aft quadrant. Therefore, if you don't sink an enemy after your torpedo run, you have to stay in close and continue to attack with your artillery since you lose most of your firepower if you try to withdraw to reload your torpedoes for another run.

Battleships

Battleships are the most powerful ships in your fleets. Their massive artillery guns are devastating to smaller ships, capable of sinking them with just a few hits. However, due to their size, these guns take longer to reload. The main advantage of a battleship is its long range. It can begin engaging smaller ships before they have a chance to return fire. Furthermore, battleships are extremely difficult to sink due to massive amounts of armor. They can withstand all types of punishment—even after a few torpedo hits, they still stay afloat.

When commanding a battleship, you'll notice your crosshairs are surrounded by lights representing your various guns. Not all will light up at the same time, because some of your guns can't aim at the target and because your artillery is comprised of your long-range main guns and smaller secondary guns with a shorter range. As the enemy gets closer, you can then fire these smaller guns as well; in addition, they reload quicker than your main guns.

U.S. and Allied Battleships

King George V Class



Stats

In Service: 1940

Displacement:
42,076 brt

Dimensions: 745' x
112'5" x 35'6"

Crew: 1,422

Speed: 20 kt

Armor: 170

Weapons

14"/45 gun (10)

5"/50 DP gun (16)

28 mm quad AA gun (4)

20 mm Oerlikon AA
gun (3)

History

These modern (1941) British battleships have very heavy armor and can withstand all but the largest enemy guns. They also have enough firepower to sink any ships they encounter. They could have had even heavier armament but were built according to the restrictions of the Treaty of Washington, which restricted the maximum size of battleships.

Their main weakness is that their 14" guns are mounted in just three turrets. If one of these malfunctions or is damaged, then much of their firepower is lost. Only one ship of this class, the Prince of Wales, is in the Pacific at this time, where it serves as the flagship of Admiral Tom Philips, commander in chief of the British Eastern Fleet.

Ships in class: King George V, Prince of Wales

Notes

The King George V class was the most powerful battleship in the Royal Navy. It could hold its own against enemy ships and had enough AA firepower to defend itself against light air attacks. The Prince of Wales was sent to the Pacific as a part of Task Force Z to defend British possessions in the region. However, before it could even engage enemy warships, it came under attack from Japanese land-based bombers and was sunk—another testament to the superiority of airpower over the once-dominating battleships.



Renown Class



Stats

In Service: 1916

Displacement:
32,730 brt

Dimensions: 794' x 90'
x 26'7"

Crew: 880

Speed: 25 kt

Armor: 160

Weapons

15"/42 gun (6)

4.5"/45 DP gun (20)

5"/25 gun (4)

28 mm quad AA gun (2)

20 mm Oerlikon AA
gun (4)

History

Built during World War I, these British battle cruisers are rather outdated now. They carry a relatively small number of main guns and are lightly armored in comparison to modern battleships. As they were built prior to the emergence of attack aircraft as a viable weapon, they also carry a very light AA suite, which makes them very vulnerable to air strikes. Nevertheless, they remain a potent adversary for any enemy shipping lighter than a battleship.

Ships in class: Repulse, Renown

Notes

While the Renown class carries larger-caliber guns than the other Allied battleships (15" compared to 14"), the Renown has only six of these guns. And due to the British naval theory that created the battle cruiser, it also has less armor. Since battleships are expensive to build and the heavy weight of their armor tends to make them slow, the idea was to combine the speed of a cruiser with the firepower of a battleship—resulting in the battle cruiser. British admirals believed that in modern naval war, speed was better protection than armor. Speed made the ship harder to hit, yet these battle cruisers had the firepower to take on enemy battleships. This class also has an impressive AA capability since its secondary artillery guns are all dual purpose.



New York Class



Stats

In Service: 1914

Displacement:
27,000 brt

Dimensions: 573' x
95'3" x 29'7"

Crew: 1,052

Speed: 20 kt

Armor: 160

Weapons

14"/45 gun (12)

5"/25 gun (8)

28 mm quad AA gun (6)

20 mm Oerlikon AA
gun (2)

History

These American battleships were launched before World War I but were updated with improved engines, thicker deck armor, and new fire control towers, bringing them up to modern standards. They carry twelve 14" guns mounted in six dual turrets, giving them considerable firepower, and they are a capable opponent against all but the heaviest modern battleships.

Ships in class: New York, Arizona, Nevada, Oklahoma, West Virginia, Tennessee

Notes

Although old, the New York-class ships can still hold their own against most enemy battleships. Their weakness lies in the fewer number of secondary guns and less AA firepower than their contemporaries. When commanding this battleship, try to keep the enemy at extreme range for as long as possible to take advantage of the 14" gun's long range.

All of the battleships at Pearl Harbor were older classes, dating back to WWI, and all took damage. Of these, the Arizona sunk quickly following a dive-bomb hit that exploded in her magazine. The Oklahoma took several torpedo hits and capsized.

Japanese Battleships

Fuso Class



Stats

In Service: 1915
Displacement: 39,154 brt
Dimensions: 698' x 100'5" x 31'9"
Crew: 1,400
Speed: 20 kt
Armor: 160

Weapons

14"/45 gun (12)
 5.5"/50 gun (16)
 5"/40 AA gun (8)
 13 mm/76 AA gun (6)
 25 mm/60 AA gun (6)

History

"Fuso" is an archaic name for Japan, and these venerable battleships were the first IJN vessels to be built completely with Japanese technology and armament. Laid down in 1912, they are somewhat outdated but have been modernized with improved armor and engines. They are very well armed, carrying twelve 14" guns alongside a very large battery of secondary 5" guns in casemates along either side, making them a powerful adversary for any surface opponent. However, despite modernization, their armor is still relatively thin, making engaging other battleships a risky proposition. Their AA armament is also quite light, leaving them vulnerable to air attacks.

Ships in class: Fuso, Yamashiro

Notes

The Fuso class can be considered a battle cruiser due to its light armor. The Fuso does well against cruisers and destroyers but should avoid even engagements against other battleships. As with all battleships, engage the enemy at long range and cause as much damage as possible before they close to begin their attack.



Kongo Class



Stats

In Service: 1913

Displacement:
36,601 brt

Dimensions: 728'4" x
101'8" x 31'9"

Crew: 1,360

Speed: 25 kt

Armor: 160

Weapons

14"/45 gun (8)

5.5"/50 gun (14)

5"/40 AA gun (8)

13 mm/76 AA gun (4)

25 mm/60 AA gun (6)

History

Designed by Britain's Sir George Thurston and entered into service during World War I, these were the first modern battle cruisers in the Imperial Navy. They are well armed, with large main and secondary batteries, and have recently received upgrades to their armor and engines. However, they are still not a match for modern battleships, though smaller surface ships have much to fear from them.

Ships in class: *Kongo, Hiei, Haruna*

Notes

The Kongo class is similar to the Fuso class. Consider them heavy cruisers rather than battleships. However, this class is effective against any enemy cruiser.

Yamato Class



Stats

In Service: 1941

Displacement:
71659 brt

Dimensions: 862'10" x
121'1" x 32'11"

Crew: 2800

Speed: 25 kts

Armor: 200

Weapons

18.1"/45 gun (9)

6.1"/60 gun (12)

5"/40 AA gun (12)

25mm/60 AA gun (24)

History

The Yamato is, quite simply, the biggest, best armored, and most powerful armed ship ever built. Weighing almost twice as much as any other battleship afloat (with the exception of her sister ship, the Musashi), she is the pride of the Imperial Fleet. Her 18.1" main guns can smash through the armor of any opponent, and will destroy smaller ships in a single shot, while the huge secondary batteries she carries give her excellent defense against air attack. Only sustained and concerted attack by a much larger force has any chance at all of successfully engaging this titan. The Yamato was the flagship of Admiral Isoroku Yamamoto, Commander of the Combined Fleet.

Ships in class: *Yamato*

Notes

The Yamato was part of the Midway operation, but saw no action during that battle. It finally engaged the enemy during the battles of Leyte Gulf and Samar. During the U.S. invasion of Okinawa in April of 1945, the Yamato was loaded with enough fuel for a one-way trip. It was sent to attack the U.S. fleet supporting the invasion, which was considered a suicide mission. U.S. planes attacked the Yamato's fleet and the great battleship finally sunk after receiving hits from eight bombs and ten torpedoes. It never made it near Okinawa or the American fleet.

Aircraft Carriers

Aircraft carriers became the most important type of ship during World War II. In fact, the goal of most of the naval battles during the early part of the war, including the Battle of Midway, was to sink the enemy's carriers. Whichever side had the most carriers had the advantage. Though carriers possessed very little armament, the airplanes they could launch allowed them to project their power at extremely long ranges as compared to even the most powerful guns on a battleship. Carriers are extremely vulnerable to all types of attacks and must be protected by their own aircraft and by escorting ships. Keep destroyers and cruisers around your carriers to protect them from submarines and surface ships.

U.S. and Allied Carriers

Hermes Class



Stats

In Service: 1923

Displacement:
13,208 brt

Dimensions: 600' x
70'2" x 21'5"

Crew: 700

Speed: 20 kt

Armor: 90

Weapons

20 mm Oerlikon AA
gun (1)

28 mm quad AA gun (1)

History

HMS *Hermes* was the first aircraft carrier commissioned by the Royal Navy and was only the second ever built in the world. Although she is a veteran ship with a long and noble past, she suffers from several design flaws—such as having a very small hangar, which means she carries a comparatively light complement of aircraft compared to modern carriers. She has recently been assigned to the British Eastern Fleet to provide air cover as the Royal Navy prepares to challenge the might of the IJN.

Ships in class: *Hermes*

Notes

The *Hermes* class is the oldest and least powerful carrier in the Pacific. It has very little defensive AA guns, carries a smaller complement of aircraft, and is best escorted by ships with a lot of AA firepower. A constant combat air patrol above it is a necessity. The *Hermes* was sunk by land-based Japanese bombers along with the *Prince of Wales* and *Renown*.

Lexington Class



Stats

In Service: 1927

Displacement:
38,746 brt

Dimensions: 850' x
105'5" x 24'3"

Crew: 2,122

Speed: 20 kt

Armor: 90

Weapons

5"/25 gun (4)

40 mm Bofors AA
gun (3)

20 mm Oerlikon AA
gun (4)

History

The Lexington was the first fleet carrier to enter service with the USN and is still the largest aircraft carrier in the world. She was originally designed as a battle cruiser, and she still carries some heavy armament as a reminder of her past. This, however, does not stop her from carrying a complement of aircraft that is just as large as any other carrier afloat. Known to her crew as the "Lady Lex," she is a veteran ship with a highly trained crew and is one of the most valuable assets the USN has in the Pacific.

Ships in class: *Lexington*

Notes

The Lexington was the oldest of the carriers that served in the Pacific. She was involved in the Battle of the Coral Sea where she received severe damage and later sunk.

Yorktown Class



Stats

In Service: 1937

Displacement:
25,500 brt

Dimensions: 761' x
83'3" x 25'11"

Crew: 2,217

Speed: 20 kt

Armor: 90

Weapons

5"/25 gun (8)

40 mm Bofors AA
gun (2)

20 mm Oerlikon AA
gun (1)

History

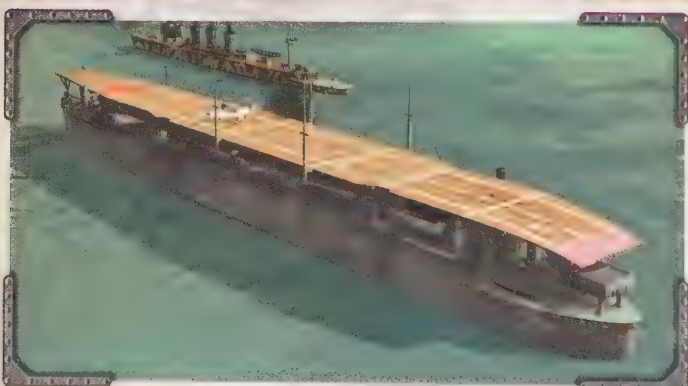
The Yorktown-class carriers are the most modern aircraft carriers the United States has, and they are built according to the latest carrier design theories. They carry a large complement of fighter and bomber attack aircraft and are capable of effectively engaging any target. Their only weakness is light underwater armor, which means they are vulnerable to torpedo attack. The USS *Yorktown* is currently serving as the flagship for Rear Admiral Frank Fletcher, as part of Task Force 17.

Ships in class: *Yorktown, Hornet, Enterprise*

Notes

The Yorktown fought in the Battle of the Coral Sea where it was damaged. However, she was able to return to Pearl Harbor and was repaired in time for the Battle of Midway, where she was again damaged and that time sunk following a torpedo attack by a Japanese submarine. The *Hornet* also carried the B-25 bombers for the Doolittle Raid on Tokyo.

Akagi Class



Stats

In Service: 1927

Displacement:
41,300 brt

Dimensions: 855'3" x
102'9" x 28'7"

Crew: 2,008

Speed: 20 kt

Armor: 90

Weapons

5"/40 AA gun (12)

25 mm/60 AA gun (18)

Japanese Carriers

Ships

History

The *Akagi* and the *Kaga* were the first large carriers to join the Imperial Fleet and have had long and distinguished careers. Originally built as battle cruisers, they were remodeled as carriers in the aftermath of the Treaty of Washington, which explains their unusual appearance. Both of these carriers served with great distinction in the Chinese campaign and together are known as Carrier Division 1. The *Akagi* is currently the flagship of Vice Admiral Nagumo's Carrier Striking Force.

Ships in class: *Akagi*, *Kaga*

Notes

Both the *Akagi* and *Kaga* took part in the attack on Pearl Harbor. Both were also at the Battle of Midway, where they were sunk due to hits from American dive-bombers.

Soryu Class



History

The *Soryu* and her sister ship *Hiryu* were commissioned in the IJN in 1937, the first large carriers to join the Imperial Fleet since *Akagi* and *Kaga* were commissioned in the late '20s. The two *Soryu*-class ships were designated Carrier Division 2 and are currently part of Kido Butai, the Carrier Striking Force commanded by Vice Admiral Chuichi Nagumo. As with all Japanese fleet carriers, they have a large number of fighter and strike aircraft aboard.

Ships in class: *Hiryu*, *Soryu*, *Shokaku*, *Zuikaku*, *Zuifho*

Stats

In Service: 1939

Displacement:
20,250 brt

Dimensions: 745' x
73'3" x 25'9"

Crew: 1,100

Speed: 20 kt

Armor: 90

Weapons

5"/40 AA gun (12)

25 mm/60 AA gun (18)

Notes

The *Soryu* and *Hiryu* both took part in the Pearl Harbor attack and the Battle of Midway. The *Soryu* was hit during the first American strike, while the *Hiryu* remained unscathed and launched a force of strike aircraft that seriously damaged the *Yorktown*. However, the second strike by American planes located and hit the *Hiryu*, sinking it along with the other three carriers in Nagumo's Carrier Striking Force.

Landing Craft

Landing troops on an enemy-held shore has always been one of the most difficult military operations. Since these types of operations were required by both sides in the Pacific in order to secure islands for bases for future advances, specialized boats and ships were designed that could easily bring men and materiel right up to the beach to unload, without the need for docks or port facilities.

U.S. and Allied Landing Craft

Higgins Boat



Stats

In Service: 1940
Displacement: 12 brt
Dimensions: 80' x 20'8" x 5'3"
Crew: 12-14
Speed: 50 kt
Armor: 4

Weapons

M1919 .30" AA gun (2)

History

These small, wooden, shallow-draft boats were the brainchild of New Orleans shipbuilder Andrew Higgins and allow for the rapid deployment of men and materiel onto enemy-held beaches. Without these remarkably innovative little boats, the invasion of enemy islands would be difficult, if not impossible. However, they are very easy to destroy, and their machine-gun armament is of minimal danger to any opponent.

Ships in class: N/A

Notes

The Higgins boats played a vital role in the Pacific campaign. They also helped make the Normandy Invasion on D-day a success.

LST Mark 2



Stats

In Service: 1943
Displacement: 1,965 brt
Dimensions: 315' x 33'5" x 12'5"
Crew: 148
Speed: 16 kt
Armor: 50

Weapons

4"/50 DP gun (1)
 20 mm Oerlikon AA gun (2)
 28 mm quad AA gun (1)

History

The landing ship tank (LST) is a recently commissioned amphibious assault ship, designed for landing heavy equipment and large numbers of troops on enemy beaches. Known to their crews as "large slow targets," these ships are lightly armored and are very vulnerable to attack. They do carry some AA armament and a single 5" main gun, but they are no match for any warship.

Ships in class: N/A

Notes

LSTs brought tanks, supplies, and more troops ashore after a beach has been somewhat secured by the troops in the Higgins boats. This allowed the U.S. troops to quickly reinforce and expand the beachhead as well as move toward the interior of the island they were landing.

Japanese Landing Craft

Uhahatsu Barge



Stats

In Service: 1939
Displacement: 15 bmt
Dimensions: 47'7" x 11'3"
Crew: 2
Speed: 25 kt
Armor: 2

Weapons

7.7 mm Type 97 machine gun (2)

History

These flat-bottomed barges are similar in function to the Higgins boats used by the U.S. Marine Corps and are used by the Japanese in amphibious assaults to land troops on enemy-held shores. They are light, fragile craft and are easily destroyed; however, their small size means that they are best targeted with machine-gun fire. They carry a single machine gun, giving them only very rudimentary defense.

Ships in class: N/A

Notes

When you must destroy these landing craft, machine gun or AA fire work best since they can be difficult to hit with artillery and torpedoes will run right under them. Fighters can also destroy landing craft by strafing them with machine-gun fire.

SB Boat Second Class



Stats

In Service: 1943
Displacement: 1,965 bmt
Dimensions: 315' x 33'5" x 12'5"
Crew: 148
Speed: 16 kt
Armor: 50

Weapons

5"/50 gun (2)
 7.7 mm Type 97 AA gun (4)

History

The Japanese military has never been shy about copying good ideas from elsewhere, and the SB boat is a prime example of this. Observing the efficacy of the American LSTs at landing heavy materiel in amphibious assaults, the IJN rushed into producing their own design, with laterally opening bow doors. The SB mounts twin 5" guns on forward pivots, along with machine guns for defense, but it is far from being a combat vessel.

Ships in class: N/A

Notes

These landing ships are harder to destroy than the smaller landing craft. Use artillery or hit them with a single torpedo to send them to the bottom.

Transports

Militaries maintained on remote islands in the Pacific needed to be supplied by ships. The three different types of transports are generic and represent several different classes and types. They are the same for both the United States and the Japanese.

Troop Transport



Stats

In Service: N/A

Displacement:

21,900 brt

Dimensions: 535' x 72'
x 31'3"

Crew: 725

Speed: 18 kt

Armor: 50

Weapons

5"/40 gun (1)

20 mm Oerlikon AA

gun (3)

28 mm quad AA gun (1)

History

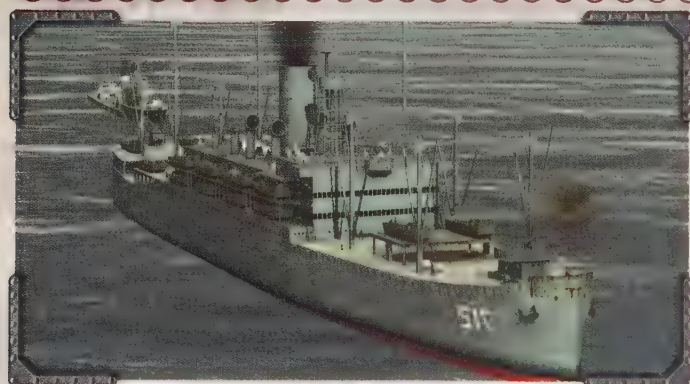
Both the U.S. and Imperial navies have co-opted a large number of civilian cruise ships for the purpose of transporting soldiers long distances. When close to a landing zone, the troops then disembark into landing craft such as Higgins boats or Daihatsu barges to reach the shore. As these are civilian ships, they are not armored, which makes them easy targets. However, they are usually fitted with some light armament to give them a chance against attackers.

Ships in class: *Sata, Sabine, Dobbin*

Notes

Hit these transports with artillery fire or a couple torpedoes in order to sink them.

Cargo Transport



Stats

In Service: N/A

Displacement:

11,565 brt

Dimensions: 441'6" x
56'11" x 28'4"

Crew: 198

Speed: 18 kt

Armor: 50

Weapons

20 mm Oerlikon AA

gun (2)

History

The Pacific Ocean is full of cargo ships such as these, particularly now that there is such a great need for large amounts of equipment and ammunition to be transported. These goods, often highly explosive in nature, are carried in the cargo holds at the front and rear of the ship. Targeting these holds often results in a devastating explosion that will sink the ship, something that can be accomplished even with airplane machine guns.

Ships in class: *Hayo Maru, Katari Maru, Kuretake Maru, Maiko Maru*

Notes

While you can attack these with artillery and torpedoes from your ships, don't waste bombs and torps from your planes. You can strafe them with machine-gun fire and send them to the bottom.

Tanker



Stats

In Service: N/A

Displacement:
21,077 brtDimensions: 501'5" x
68' x 30'2"

Crew: 214

Speed: 18 kt

Armor: 50

Weapons

20 mm Oerlikon AA
gun (1)

History

Both sides require large quantities of fuel oil to sustain their war efforts, and this is transported around in large tankers. Unfortunately, oil, especially the light yellow East Indies crude, is extremely flammable, which makes these ships extremely vulnerable to attack of any kind: even machine-gun fire can start a potentially fatal blaze in one of the storage tanks.

Ships in class: *Horai Maru*, *Tatsuno Maru*, *Uzan Maru*

Notes

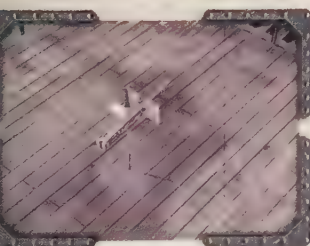
As with the other transports, it does not take much to sink a tanker. If you are a submarine, sink any escorting warships first, then surface and use your artillery to take out tankers—especially if you are low on torpedoes.

Ship Weapons

Antiaircraft Guns

AA guns consist of machine guns; cannons that fire rounds that explode on impact; and flak guns that fire a round that explodes at either a set altitude or when in proximity to an airplane, causing **Blast Damage** if it does not get a direct hit. AA guns can also be used against small surface targets such as PT boats or landing craft.

M2 .50" Machine Gun



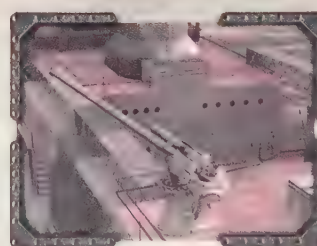
Range: 0.43 nm/800 m

Damage: 18

Rate of Fire: 600 RPM

The M2 is a scaled-up version of the M1919 machine gun engineered to fire the .50 Browning Machine Gun (BMG) cartridge, which has a far better range, trajectory, and penetrating power than the small .30 cartridge. Like its little brother, it's in service both aboard ships and planes, but is a far more effective weapon than its predecessor.

5"/25 Gun



Range: 0.81 nm/1,500 m

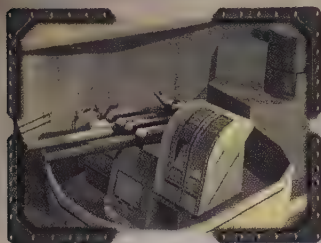
Damage: 120

Blast Damage: 30

Rate of Fire: 11 RPM

This weapon came into service in 1926 as the first heavy AA weapon to be mounted on USN ships. Deployed on most U.S. cruisers and capital ships built between 1926 and 1940, it is also often used as a land-based AA gun and has been sold to many nations. Over time, its crews noted that it could be used to attack surface targets, and thus it became the first weapon to be used in a "dual-purpose" role.

5"/40 Gun



Range: 1.08 nm/2,000 m
Blast Damage: 40
Rate of Fire: 11 RPM

These guns came into service with the IJN in the early 1930s. They are used only for AA purposes and can be found on almost all Japanese ships of cruiser size or larger. They are considered excellent weapons, as they are easy to handle and have a fast rate of fire.

13 mm/76 AA Gun



Range: 0.54 nm/1,000 m
Damage: 16
Rate of Fire: 100 RPM

This is a Japanese copy of a French weapon made by Hotchkiss and has been in production since 1935. It is found on almost all IJN ships and is also used in the turrets of bombers for defense against fighter planes. Like all small-caliber weapons, however, it has proved of limited effect against modern aircraft.

20 mm Oerlikon AA Gun



Range: 0.54 nm/1,000 m
Damage: 16
Rate of Fire: 200 RPM

Originally designed by the Swiss, this AA machine gun is now built by both the Americans and the British under license and has become the standard AA gun for both nations' navies. It is an extremely effective and accurate weapon against air targets and can also be used to strafe lightly armored ground targets.

25 mm/60 AA Gun



Range: 0.86 nm/1,600 m
Damage: 16
Rate of Fire: 100 RPM

As with the 13 mm/76, this is also a design copied from the French firm Hotchkiss. It is the largest AA machine gun in the Japanese arsenal and equips practically every warship in the IJN. It is an excellent weapon.

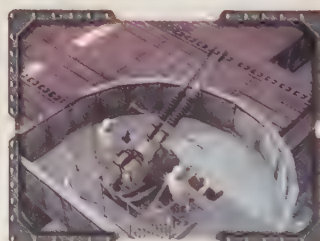
28 mm Quad AA Gun



Range: 0.86 nm/1,600 m
Damage: 16
Rate of Fire: 120 RPM

First developed in the late 1920s to address the deficiencies of the .50-caliber BMG, this weapon was intended to combine a high rate of fire with a heavy-caliber exploding shell to create a very potent AA weapon. It was rushed into production and armed many USN ships. Unfortunately, it turned out to be an unreliable and short-ranged weapon, and was largely replaced by 20 mm and 40 mm weapons.

40 mm Bofors AA Gun



Range: 0.86 nm/1,600 m
Damage: 20
Rate of Fire: 120 RPM

Designed by the Swedish Bofors company in 1933, this AA gun is a remarkably potent weapon that first saw service with the Royal Navy in early 1941. It was introduced on USN ships in early 1942. It is a long-ranged and accurate weapon firing a very heavy explosive shell, and it is capable of easily knocking any plane out of the sky.

Artillery

These are the main guns on all surface ships. They range from 4" guns on destroyers to the 18" guns on the Yamato-class battleships. The larger the round's caliber, the greater the range—and the more damage it causes.

4"/50 Gun



Range: 0.81 nm/1,500 m
Damage: 120
Blast Damage: 30
Rate of Fire: 11 RPM

This is originally a late-nineteenth-century design, an updated version of which still arms many U.S. and British ships. It is a lightweight and easy-to-handle gun that crews greatly like, and has proved its worth in many conflicts. It is also often used in surface emplacements to defend coastlines.

4.5"/45 DP Gun



Range: 0.81 nm/1,500 m
Damage: 120
Blast Damage: 30
Rate of Fire: 11 RPM

This weapon design was formulated in the 1930s by the British Royal Navy to arm its new aircraft carriers. It has also been used to refit capital ships, such as the Renown-class battle cruisers. It is a dual-purpose weapon, capable of engaging either surface or air targets, and is usually used in twin mountings.

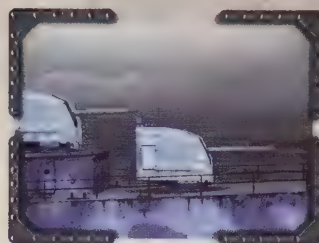
4.7"/45 Gun



Range: 0.81 nm/1,500 m
Damage: 120
Blast Damage: 30
Rate of Fire: 11 RPM

These guns have been in service since 1920 and can be found on a multitude of small Japanese ships. They are simple weapons, usually handworked, and are thought to be a development of a British World War I weapon. They are incapable of performing a dual-purpose role and are thus considered obsolete.

5"/38 DP Gun



Range: 0.81 nm/1,500 m
Damage: 120
Blast Damage: 30
Rate of Fire: 11 RPM

The 5"/38 DP gun is a direct descendant of the earlier 5"/25 heavy AA gun, whose crews often used it against surface targets. The result was the first genuine dual-purpose weapon to be designed for the role. It is fantastic in the anti-air role and can also fire a shell that can penetrate the armor of destroyers and light cruisers.

5"/50 DP Gun



Range: 0.81 nm/1,500 m
Damage: 120
Blast Damage: 30
Rate of Fire: 11 RPM

This is the Japanese version of the 5" dual-purpose gun and was actually designed about seven years earlier than the U.S. equivalent. The mountings for these guns were revolutionary at the time, as they were the first destroyer guns to feature weather and splinter- and weatherproof mountings. In terms of performance, they are very similar to the American 5"/38.

5.25"/50 DP Gun



Range: 0.81 nm/1,500 m
Damage: 120
Blast Damage: 30
Rate of Fire: 11 RPM

These dual-purpose guns are used as secondary batteries on King George V-class battleships. The design specification for this gun's shell required that it be the heaviest possible that a gun crew could handle, resulting in the unusual caliber. Its 80-pound shells are about 50 percent heavier than those fired from the American 5"/38 gun.

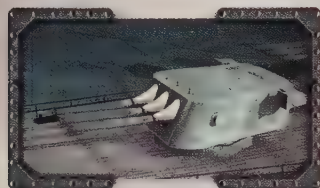
5.5"/50 Gun



Range: 0.81 nm/1,500 m
Damage: 120
Blast Damage: 30
Rate of Fire: 11 RPM

Designed in 1914, these guns were used for the secondary batteries of almost all Japanese capital ships built or planned between 1915 and 1922. They were also used to equip light cruisers up until 1930. They fire an 86-pound shell that is effective against the armor of any ship of light cruiser size or smaller.

6"/47 Gun



Range: 1.02 nm/1,900 m
Damage: 150
Blast Damage: 40
Rate of Fire: 9 RPM

The 6"/47 is a new design that has only recently entered service and is used as the main armament on Cleveland-class light cruisers. It fires a shell that is almost twice as heavy as that fired from the 5"/38 guns carried by the Atlanta class.

6"/53 Model 1942



Range: 1.02 nm/1,900 m
Damage: 150
Blast Damage: 40
Rate of Fire: 9 RPM

These guns are a Swedish improvement of the Bofors 5.9"/52 gun, which was originally developed for the Dutch navy. These new weapons have also been acquired by the Dutch navy to arm its De Reyter cruiser. They are unusual in that the projectile and charges for them are assembled onboard into fixed rounds, which is making them increasingly obsolete.

6.1"/60 DP Gun



Range: 0.97 nm/1,800 m
Damage: 140
Blast Damage: 40
Rate of Fire: 8 RPM

This Japanese weapon was originally installed on Mogami-class cruisers, only to be replaced by the 8"/50. It is now installed in the secondary batteries of Yamato-class battleships and serves a dual-purpose role against both air and surface targets.

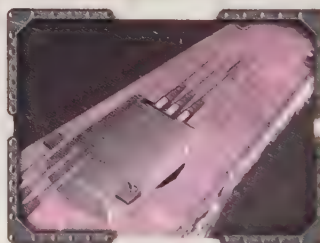
8"/50 Gun



Range: 1.18 nm/2,200 m
Damage: 200
Blast Damage: 55
Rate of Fire: 7 RPM

This weapon is of Japanese design and was formulated in the early 1930s to give the IJN a weapon suitable for heavy cruisers that adhered to the naval limitation treaties of the time. It is comparable in performance to the 8"/55 guns used by the Allied navies.

8"/55 gun



Range: 1.18 nm/2,200 m
Damage: 200
Blast Damage: 55
Rate of Fire: 7 RPM

The Washington Treaty of 1921 stated that no cruiser-class ship's armament could be heavier than 8" guns. Needless to say, the 8" has now become the standard armament for every heavy cruiser design in the world. U.S. and British ships both use reasonably antiquated designs from the late 1920s. These potent weapons can easily inflict heavy damage on any ship of cruiser size or lighter, and can even inflict minor damage on battleships.

Ships

14"/45 Gun



Range: 1.65 nm/3,000 m
Damage: 250
Blast Damage: 100
Rate of Fire: 5 RPM

The 14"/45 naval rifle is one of the heaviest guns afloat. Mounted on Japanese, American, and British battleships, it fires a 1,590-pound shell that is powerful enough to destroy smaller ships with a single shot. Nevertheless, modern battleships mount armor thick enough to resist such punishment, and newer ships are fitted with 16" guns or heavier.

15"/42 Gun



Range: 1.65 nm/3,000 m
Damage: 250
Blast Damage: 100
Rate of Fire: 5 RPM

This is considered to be the best large-caliber naval gun ever developed by the British Royal Navy, and has been in service since World War I. It is growing obsolete now, as some newer weapons exceed its range and power. Nevertheless, it is an awesome weapon and a threat to any ship afloat.

18.1"/45 Gun



Range: 1.78 nm/3,300 m
Damage: 300
Blast Damage: 125
Rate of Fire: 5 RPM

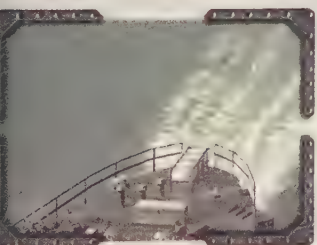
Known to the Japanese as the 46 cm/45 gun, this is the heaviest weapon ever to be installed on a battleship. It fires a 3,219-pound shell, which is over twice the size of that fired by the 14"/45 gun. It is absolutely unparalleled in terms of destructive force and can easily destroy almost any ship afloat with a single hit.



Other Weapons

Some ships also carry specialized weapons that allow them to attack larger ships or submerged submarines.

Depth Charge



Range: N/A
Blast Damage: 500

Depth charges are the only weapons capable of attacking a submerged submarine. Consisting of little more than a barrel of explosives with a pressure-sensitive fuse attached, they can be dropped by ships or planes and explode when they reach a set depth. Thanks to the magnifying effect water has on underwater explosions, even a near-miss can be fatal to a submarine.

Torpedo



Range: 1.35 nm/2,500 m
Damage: 250
Blast Damage: 50

The torpedo is the single most potent antiship weapon in any nation's arsenal. Consisting of a large explosive warhead attached to a self-contained engine, it can be fired from a ship no larger than a PT boat, and yet it contains enough explosive power to damage or destroy even the most heavily armored warships. Torpedoes inflict damage below the waterline, which not only magnifies the effect of the explosive, but also guarantees to breach the target's hull.

Ship Tactics

As the commander of a naval fleet, you have to master various types of tactics in order to engage and destroy the enemy forces that oppose you. This section focuses on surface ship tactics.



Ships can be both fun and challenging to control in battle.

Battle Maneuvers

Whether you command a single ship or an entire fleet, naval warfare is dynamic rather than static. Ships during a battle should be in constant motion, either searching for the enemy, advancing toward the enemy, or withdrawing from the enemy. What you do and how you do it depends on the ships under your command.

Formations

Whenever you combine two or more ships into a group, you can then arrange their position around the group leader. The Naval Academy mission "Fleet Formations" shows you how to open the Formation screen and then move ships. However, positioning your ships is the key to making your group more effective. This varies depending on the types of ships that compose the group and what you are up against.

The line astern formation places the lead ship at the front of a line of ships. This is good for firing broadsides with your ship's artillery and for launching torpedoes with a group of ships. This formation allows all ships the ability to fire at targets off to either side.



Line astern



Line ahead

The line ahead formation places the lead ship at the end of a line of ships. This is good when approaching the enemy at an angle. If your lead ship has the longest-range guns, put smaller ships up front, thus allowing all your

ships to start attacking around the same time.



Line abreast

Line abreast is great for protecting a carrier ship. The ships to the sides can take torpedoes meant for the lead ship. Placing cruisers to each side also helps protect the lead ships from air attacks since most cruisers can put up

a lot of AA fire. This is not a good formation if you want your lead ship to fire at the enemy, since your side ships block the lead ship's broadsides.

The inverted-V is good for attacking the enemy ahead as well as providing the lead ship with some protection from subs and aircraft.



Inverted-V

Ships



V formation

The V formation puts the smaller ships ahead of the lead ship. This is good for allowing your small ships to get into the action sooner while still affording the lead ship some protection from both sides.



Echelon port

Echelon port is a good formation for attacking enemies to the left of your group as you approach them at an angled intercept course. This allows all the ships in your group to stay approximately the same distance from the enemy.



Echelon starboard

Echelon starboard is the mirror image of echelon port and has the same advantages—except it is used for attacking enemies to the group's right side.

If you know the enemy will attack from only one side, and the lead ship needs some protection, place your other ships in a line to the left or right of the lead ship, depending on the threat. This works well against subs and aircraft if you know from which direction they are approaching. These



The wall

smaller ships will put up defensive fire, and they can take some of the torpedo hits that were meant for your lead ship—the lead ship's survival is an objective. You can actually put more than two smaller ships together to make the wall even tougher to penetrate.

Closing with the Enemy



Approach at an angle so most of your guns can bear on the target.

In most cases, you can detect enemy units at a longer range than you can fire at them. Therefore, you must maneuver closer in order to use your weapons. Most ships have their main guns (artillery) in turrets located along the ship's centerline,

both fore and aft of the superstructure. Therefore, you can't fire all your guns at a target directly in front of you or directly behind you.

The key to success in an artillery battle is bringing as many guns to bear on the enemy as possible. Therefore, when you approach an enemy and are in artillery range, turn your ship so you move toward the target at an angle. The angle between the target's bearing and your ship's heading usually must be about 30 to 45 degrees in order to maximize the number of guns you can fire. If the enemy is fleeing, you may have to make 90-degree turns in a zigzag pattern in order to continue closing and still fire all your guns.



Tip

While the enemy is still outside your artillery's range, approach head-on until you can fire your guns. This is especially important if the enemy is a larger ship and can fire at your ship from a farther distance. You want to close as quickly as possible. In addition, approaching head-on makes your ship a smaller target that is harder for the enemy to hit. When you are in range for your weapons, turn to bring your guns or torpedo launchers to bear on the enemy. This tactic works best for destroyers trying to get close to a larger ship for a torpedo run.

Firing Artillery

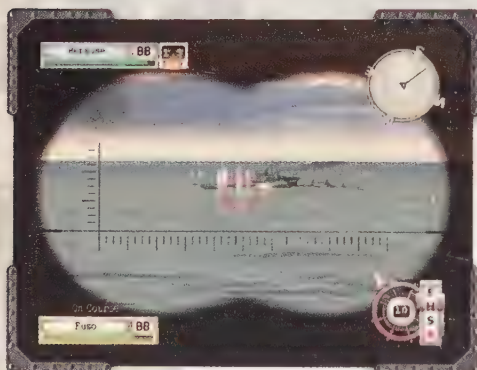


Good use of artillery can sink enemy ships.

During the training missions, your artillery practice is against a stationary target at fairly close range. However, during combat, you will be firing from a moving target at another moving target. Therefore, you must lead the target, which means firing your guns so that your shells hit where the target will be by the time your shells travel the distance between the two ships. The greater the distance, the longer it takes the shells to reach their target. Also, the faster the target is moving, the more you must lead it.



Battleships are the kings of naval artillery. Single hits with their main guns will sink destroyers.



Watch for splashes, which will help you adjust your fire.

ship's bow. Splashes past the target indicate you are firing past it. Lower the crosshairs to correct your aim.

Whenever you fire artillery at a target, consider using Binoculars mode. Position the crosshairs' horizontal line on your target's hull and aim just a little ahead of the target's bow. Fire off several rounds, allowing the target ship to move into the center of your reticle. Now watch for the splashes. If you are using Binoculars mode, zoom out so you can see splashes if they are not right next to the target. If the splashes fall behind the ship, you must fire a bit farther ahead of the target.

On the other hand, if the splashes are between you and the target ship, then you are firing short. Raise the crosshairs a bit for correction. As a general rule, the smaller the ship, the more you must lead since smaller ships are usually faster. For example, you will want to lead a destroyer by almost half its length, while you can usually get hits on a battleship by aiming just in front of the bow.

Range Finding

Radar was first used during World War II and allowed ships to locate enemies that could not be seen visually (because of distance, weather conditions, or darkness) and to know how far away the target was from the radar receiver. Not all ships had radar, and even those that did could not use it effectively for targeting their guns since the radar technology was not accurate enough for precision range finding. Therefore, ships armed with long-range artillery, such as battleships and cruisers, featured fire directors. These were located in two towers on the ship—one located toward the bow and the other toward the stern. The men in these directors would determine the angle from their position to the target.

By taking the angle from each director, along with the known distance between the two directors, these sailors could use trigonometry and geometry to triangulate the distance from the ship to the target. Once they had an initial range, the ship would fire all the guns that bore on the target, and the fire directors would watch to see if the rounds hit. Depending on the location of the splashes in relation to the target, the fire directors could then adjust the fire until the target was bracketed. This gave them the right angle of elevation for the guns, and they could now fire for effect. Luckily for you, the crosshairs act as a fire director for you, showing you exactly where the shells will hit. However, you still must lead the target on your own and watch the splashes to adjust your fire for accuracy.

Air Defense



AA guns can quickly bring down enemy planes. Just be sure to lead the target to get hits.

If the enemy has aircraft, then you must be ready to defend your ships from strafing, bombing, and torpedo attacks. The best defense is to locate enemy planes before they get too close to your ship. Press the Target button to cycle through targets to find enemy aircraft or use the tactical map. Binoculars mode makes shooting down planes a lot easier and lets you engage at longer ranges. The AA crosshairs are dynamic, with little arcs appearing when you can hit the enemy.

You need to lead planes, especially for long-range shots. Fire in front of the plane and then watch the target window to see if you are causing damage. Larger ships with dual-purpose guns can attack enemy planes at longer ranges and cause more damage with each hit, so if you have a cruiser or other ship with a lot of AA firepower, try taking control of it during an air attack.

Torpedo Combat

Torpedoes are powerful weapons that can greatly damage ships. Since ships use torpedoes and are also the target of torpedoes, you must know how to both attack with these weapons and avoid being hit by them.

Torpedo Runs

Several different ships carry torpedoes. All PT boats, destroyers, and some cruisers are armed with these weapons. While PT boats launch torpedoes from launchers facing toward the boat's bow, the other ships have launchers off to the sides. Torpedoes have a range of 1.35 nm; however, they are best used at much closer ranges. PT boats can make head-on attacks, and their small size and high speed allow them to maneuver in close to targets before launching. Destroyers and cruisers must move in and then turn to launch their torpedoes from the sides.

The key to a torpedo run is speed—get in to launch before the enemy sinks your ship. As you turn to launch, it is usually good to turn away from the direction your target is moving. Otherwise, you will put your ship alongside the enemy, subjecting you to a broadside artillery attack. Since torpedoes take a while to reload, get away rather than staying in close after firing or you won't get a chance to launch a second strike.



Destroyers and cruisers launch torpedoes off to their sides.

Aiming the torpedo crosshairs sets a bearing along which your torpedoes can travel. Even if your torpedoes can't launch in that direction, as soon as they hit the water and move away from your ship, they will turn to the bearing you set. Since there is a bit of delay before the turn, if you launch a torpedo in too close to the target and have it set to make a turn, the torpedo may not be able to make the turn in time and miss.

Also, torpedoes travel much slower than artillery shells. Therefore, you must lead the target quite a bit. Since it is hard to gauge where exactly a ship will be a minute from launch, you can increase your chances of a hit by launching a spread of torpedoes. Fire several shots ahead of the enemy, adjusting the bearing by 5 to 10 degrees before each consecutive shot. This creates a fan-shaped pattern of torpedoes, which are more likely to get a hit.

Torpedo Avoidance

By default, ships are set to avoid torpedoes in their standing orders. However, you may need to take control of the ship in order to save it. While you can see the wakes created as torpedoes travel through the water, it is easier to see where the torpedoes are on the highest zoom level of the tactical map, which shows individual torpedoes.

If a torpedo is headed to where your ship will be at its current speed and heading, change location. Set the throttle to full back or reverse to slow down your ship and move it away from the torpedo. You can also turn toward or away from the torpedoes. This exposes only your bow or stern rather than your ship's entire length, making it much harder for the torpedo to get a hit. Just changing speed and heading will help. The worst thing you can do is maintain your current course.



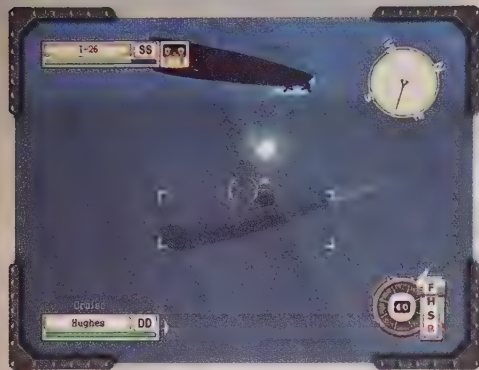
Tip
The best way to avoid torpedoes is to destroy enemy ships, planes, and subs before they can get in close enough to launch against you.

Antisubmarine Operations



Target the sub and then sail to intercept it.

Enemy submarines can be very dangerous to your fleets. You must protect against their ability to sneak up and launch torpedoes at your ships. Destroyers are designed for sinking subs. They are equipped with sonar that can detect submerged submarines. Once detected, send your destroyers to attack any enemy subs. Even if the sub is part of a group, order your destroyer to go after it. PT boats can also attack subs.



Drop the depth charges on top of the enemy sub to sink it.

In order to go after a sub, first target the sub so the white brackets appear over its location. This helps you maneuver your ship to its location. You want to position yourself over the sub.

Depth charges are the only weapon capable of damaging and destroying a submerged sub. Simply drop these explosives into the water, and they detonate when they reach a certain depth—depth level 2 in game terms.

Both destroyers and PT boats can sail faster than a sub—50 and 40 knots, respectively, versus 25 knots—so you will be able to catch up. As you get within about 0.2 nm, drop a depth charge to switch to an undersea view. Continue to maneuver so you are right over the sub, preferably traveling in the same direction. As you pass over, hold down the Fire button to drop depth charges as quickly as possible. Keep an eye on the sub and match its course changes. If necessary, slow down so you don't rush past it. Keep up the pressure and you will sink the sub.



Tip

The enemy sub may dive to depth level 4 to avoid your depth charges and hide from your sonar. If this happens, go to the tactical map and have your destroyer patrol in a box around the sub's last known position. If you damaged it, the sub will not be able to stay down long. Also watch for it to surface when it runs out of air. On the surface, you can use your artillery to attack it at a distance as you move in to use depth charges if it dives again.



BATTLESTATIONS
★ **MIDWAY** ★

Planes

While the airplane saw its main debut as a weapon during World War I, these early planes were very light and flimsy, made up of wood and fabric. Capable of carrying only light weapons and ordnance, these early birds of war provided a glimpse of the future potential of airpower. During the interwar years, visionaries from several different countries began to form strategy of how aircraft could be used in future wars. Often viewed as eccentric at best by generals and admirals who formed national policy, these aviation proponents wrote letters to one another and laid the groundwork for the next war.

While the battleship had been the most powerful weapon in the world during the first decades of the twentieth century, dominating the sea lanes that served as the highways of international commerce, their influence was limited to a dozen miles from the coast.

According to men such as Billy Mitchell of the United States, Hugh Trenchard of Great Britain, and Giulio Douhet of Italy, the new superweapon would be the bomber. Capable of attacking targets that were hundreds, even a thousand miles away, it could bring destruction against targets on both land and sea. Therefore, the development of various types of aircraft began: medium and heavy bombers were designed for attacking military targets as well as civilian populations and means of production; light bombers were designed for tactical strikes on the battlefield—essentially flying artillery; and fighters were designed to shoot down the bombers of the enemy as well as protect friendly bombers.

While aviation programs developed in all of the major powers, only Germany viewed airpower as a vital part of an offensive strategy—although they focused on small, tactical bombers to support their Blitzkrieg plans. Japan and the United States, both of which developed aircraft carriers to support their fleets, still viewed the battleship as the primary naval weapon around which to form a fleet.

The destruction of and damage to most of the U.S. battleships in the Pacific during the attack at Pearl Harbor showed the vulnerability of these steel leviathans and forced the United States to center their fleets on the carriers, which were absent from Hawaii that morning and survived.

The Battle of the Coral Sea was the first major naval engagement in which the opposing fleets never came within visual distance of each other. All attacks were delivered by aircraft. By the war's end, the airplane had become the most destructive conventional weapon the world had ever known—second only to the atomic bomb.



Fighters

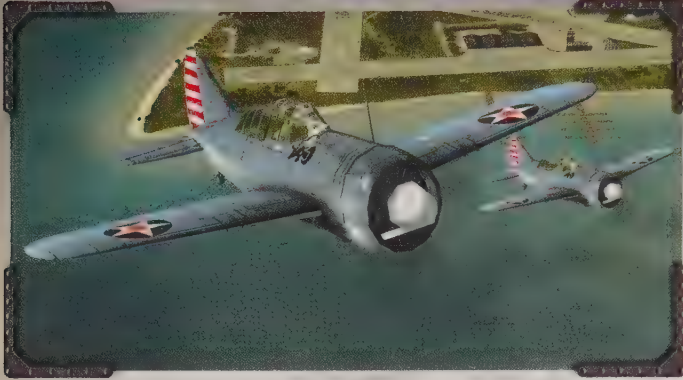
During the time between the two World Wars, bombers were the main focus of the world's air forces as an offensive weapon. However, since the enemy would also be using bombers, a defense against bombers was needed. Thus the fighter was born. Designed for pursuit or interception, the fighter was meant to shoot down enemy bombers. Therefore, they needed to be fast, maneuverable, and able to carry enough firepower to bring down a plane larger than itself. As the war progressed and fighters were able to fly longer distances, they began to escort friendly bombers and protect them from enemy fighters. However, their primary mission was always to shoot down enemy planes.

As a commander of a fleet, your primary defense against enemy airpower is fighters. Always keep at least one squadron on combat air patrol over your fleets and ground installations such as air bases and sea bases. While fighters can't deliver decisive blows to enemy fleets and ground targets, they keep yours from being destroyed.

If the enemy has fighters in the area, consider assigning squadrons of fighters to escort your bombers. This will help ensure your bombers reach their target, deliver their bomb load, and then return home safely.

U.S. and Allied Fighters

Brewster F2A Buffalo



Stats

Crew: 1
Length: 26.33'
Wingspan: 35'
Max Speed: 373.2 mph

Armament

.50 cal machine gun (4)
Optional: 200 lb bombs (2)

History

The Brewster F2A Buffalo has been in service aboard U.S. Navy carriers since 1939. However, it has been largely unsatisfactory, being too unstable and underarmed, and too heavy for carrier operations. It has been largely phased out of operation and been replaced by the Wildcat on all carriers. Nevertheless, it is still in service as a land-based fighter with the British and Dutch air forces, as well as with U.S. Marine Corps squadrons.

Notes

The Brewster Buffalo makes only a few appearances during the game. You will find them as squadrons at land airbases such as on Midway Island. While they are not much of a match for the Japanese Zero, they can do a fine job bringing down enemy bombers.

Curtiss P-40 Warhawk



Stats

Crew: 1
Length: 31.75'
Wingspan: 37.33'
Max Speed: 373.2 mph

Armament

.50 cal machine guns (4)
Optional: 200 lb bomb

History

Coming into full production in 1940, the P-40 represents the latest installment in Curtiss' "Hawk" line of aircraft. Commissioned by the U.S. Army Air Corps, it is a land-based fighter that has already served with distinction against the Japanese in China as part of General Claire Chenault's volunteer group "The Flying Tigers." Although it has shown that it can hold its own against modern Japanese aircraft, new aircraft designs are emerging that will soon render it obsolete.

Notes

The Warhawk is another land-based fighter and is available only at land airbases. The Warhawk was the primary fighter of the United States Army Air Force (USAAF) at the war's beginning and could hold its own against enemy aircraft.

Grumman F4F Wildcat



Stats

Crew: 1
Length: 28.96'
Wingspan: 37.98'
Max Speed: 398.08 mph

Armament

.50 cal machine guns (6)
Optional: 200 lb bombs (2)

History

The F4F is the Navy's main carrier-based fighter and has been in full service since August 1940. Initially designed as a biplane, it was redesigned as a monoplane and given a larger engine to make it competitive with other designs such as the F2A Buffalo. The Wildcat is slower than the Japanese Zero but can absorb far more damage thanks to its armor plating and self-sealing fuel tanks.

Notes

The F4F Wildcat is an excellent example of the difference in design between American and Japanese aircrafts. While the Zero was built to be fast and maneuverable, the Wildcat was built to be tough. Though bulky and somewhat rough-looking, the Wildcat could take a lot of punishment and keep on fighting. U.S. pilots developed tactics such as the "Thatch Weave" where wingmen worked together as a team to overcome the maneuverability advantage of Japanese fighters. Many a sailor and bomber crewman owe their lives to the Wildcat and its pilots who kept their surface-bound brothers safe from enemy bombers and fighters.

Hawker Hurricane



Stats

Crew: 1
Length: 32.21'
Wingspan: 39.98'
Max Speed: 410.52 mph

Armament

.303 cal machine gun (6)

History

The Hawker Hurricane has been the Royal Air Force's main single-engine fighter since 1937, and has been produced in huge numbers. It proved its merit as a fighter plane in the Battle of Britain, where it accounted for more enemy kills than all other defenses combined, including all ground and air defenses. It is a simple design, consisting of a welded metal frame with fabric stretched over it, but its six-wing-mounted machine guns give it excellent firepower. A version known as the Sea Hurricane operates on the Royal Navy's Fleet Carriers.

Notes

The Hawker Hurricane was the primary British fighter at the war's beginning. By 1941, the Supermarine Spitfire in Europe had replaced it. However, since these new fighters were needed to defend Britain from the Nazi bombing campaign known as the "Blitz," British forces in the Pacific made do with the Hurricane.

Japanese Fighters

Mitsubishi A6M Zero-Sen "Zeke"



Stats

Crew: 1
Length: 29.72'
Wingspan: 36.08'
Max Speed: 383.2 mph

Armament

7.7 mm machine guns (2)
 20 mm 99M1 auto-cannon (2)
 Optional: 100 kg bombs (2)

History

Known to the Imperial Japanese Navy as the "Type O Carrier Fighter," this is one of the finest planes currently serving in any air force. Capable of higher speeds than any comparable American plane and more maneuverable, it also boasts a hugely powerful armament of two 7.7 mm machine guns and two 20 mm cannons that fire explosive shells, giving it the power to shred any enemy in seconds. It has been in service since early 1940 and is known to the Allies by the codename "Zeke."

Notes

The Zero was the best fighter at the war's start. Its design powered heavily from Howard Hughes's H-1 racer, including its aerodynamic lines and retractable landing gear. It was also one of the more heavily armed fighters due to the autocannons it carried. Unfortunately, the Zero sacrificed protection in exchange for high performance. To keep it light and maneuverable, the plane had little or no armor to protect its pilot, engine, and avionics, and the decision to dispense with self-sealing fuel tanks meant that minor damage to the plane could be fatal—even if the plane was not destroyed during combat, the plane might not be able to make it back to base. This fault seriously depleted the pool of trained and experienced pilots by the middle of the war.

Nakajima Ki-43 "Oscar"



Stats

Crew: 1
Length: 28.96'
Wingspan: 37.52'
Max Speed: 373.2 mph

Armament

12.7 mm machine guns (2)
 Optional: 100 kg bombs (2)

History

Where the Zero serves the Japanese Navy in the fighter role, the "Oscar" serves the Japanese Army. Known as the "Hayabusa" or "Peregrine Falcon" to its pilots, it is a modern fighter aircraft that entered production in 1941. Although slightly slower than the Zero, it has a longer range, faster cruising speed, and a higher ceiling, making it better suited for land-based operation. Its only shortcoming is its offensive armament, which consists of only two machine guns. It is considerably undergunned compared to other fighters.

Notes

While the Oscar was more rugged than the Zero, it lacked the Zero's firepower, which is puzzling. Why trade maneuverability for fewer guns? The Oscar is a land-based fighter used to defend airbases as well as to support Japanese fleets during amphibious landing operations. While they take more damage than a Zero, they are easier to hit.

Dive-Bombers

The U.S. Marine Corps was one of the early proponents of dive-bombing. During the interwar years, the Marines studied amphibious landings as their specialty, which they would need in case of another war—especially a war in the Pacific. With the failure of the Gallipoli landings in Turkey during WWI, the Marines noted a need for heavy, accurate firepower to support the infantry going ashore as they made the dangerous transition from naval cargo to fighting ground troops. The troops could not have their own artillery until they secured a beachhead, and naval gunfire was not always dependable and never under the direct control of the Marines.

The Marines needed their own support. They chose a tactical bomber that could act as flying artillery, delivering a bomb right where it was needed—sometimes close to friendly units. Since level-bombing was inaccurate and often required dropping a string of several bombs to ensure a hit, the Marines developed a tactic focused on accuracy. They learned that a bomb will normally drop to the earth traveling in a parabolic path, with wind and other factors affecting its accuracy. However, when a plane approaches a target in a near vertical dive, the bomb travels in more of a straight line, using the airplane's speed instead of gravity alone to propel it toward the target with much greater accuracy.

The Navy, realizing that the increased speed of impact would allow a bomb to penetrate the deck of a ship and explode internally, began to use dive-bombers as part of its naval-strike tactics. While intended as secondary to torpedo bombers, dive-bombers became the primary strike aircraft for the U.S. Navy following the poor performance of the slower and more vulnerable torpedo bombers at the Battles of the Coral Sea and Midway.

U.S. Dive-Bombers

Douglas SDB Dauntless



Stats

Crew: 2
Length: 32.67'
Wingspan: 41.52'
Max Speed: 311 mph

Armament

.50 cal machine guns (2)
1,000 lb bomb or depth charge (1)

History

Commissioned as a combination scout/bomber aircraft, the Dauntless entered service with the Marines in late 1940 and with the U.S. Navy in early 1941. It is now the Navy's foremost carrier-based bomber. Although it is slower and less maneuverable than its Japanese equivalent, the Aichi "Val," it is an excellent dive-bomber thanks to its very good flight characteristics. It is also able to absorb heavy amounts of damage.

Notes

The Dauntless was the main dive-bomber for the U.S. Navy and Marine Corps during the first part of the war and accounted for most of the damage caused to enemy warships during this time period. They had a much higher survival rate than torpedo bombers because the Dauntlesses would approach the target at high altitude, often above the range of most AA guns, and then make a fast dive down on the target, limiting the amount of time they were exposed to enemy gunfire. They were especially effective against enemy carriers since their 1,000 lb bombs could penetrate wooden flight decks and explode in the hangars below, where there was often fuel and other bombs that would ignite and explode.

Japanese Dive-Bombers

Aichi D3A "Val"



Stats

Crew: 2
Length: 33.46'
Wingspan: 47.13'
Max Speed: 311 mph

Armament

7.7 mm machine guns (2)
500 kg bomb (1)

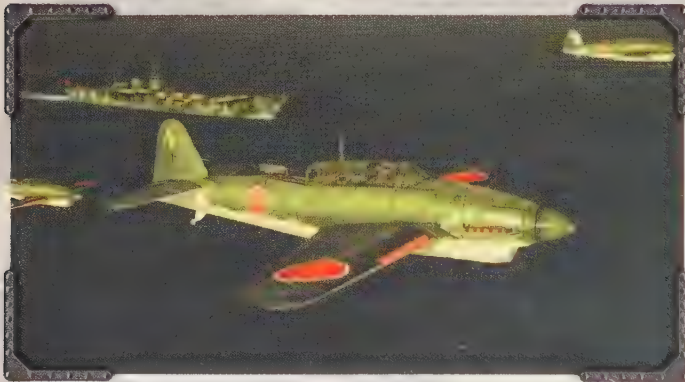
History

This carrier-based dive-bomber is known by the codename "Val" to the Allies, while the Japanese Navy terms it the "Navy Type 99 Carrier Bomber Model 11." In service since 1939, it is easily recognizable by its fixed landing gear—because it travels at lower speeds than fighter planes, retractable gear is unnecessary. It is a highly maneuverable and stable airplane; indeed, it is so agile that it can serve as a dogfighter if necessary. It is very popular with the pilots of the Kido Butai, and in training they have achieved dive-bombing accuracy statistics exceeding 80 percent.

Notes

Like the German Luftwaffe, the Imperial Japanese Navy also studied the U.S. Marine Corps' experiments with dive-bombing and quickly adopted it as a means of sinking enemy ships. The Val was their main carrier-based dive-bomber during the first part of the war and was successful during the attack on Pearl Harbor. A bomb dropped by a Val penetrated the deck of the USS *Arizona* and exploded in the battleship's magazine, causing a crippling detonation that sunk the ship in a matter of minutes, killing a high number of the crew.

Yokosuka D4Y "Judy"



Stats

Crew: 2
Length: 32.67'
Wingspan: 41.52'
Max Speed: 311 mph

Armament

7.7 mm machine guns (2)
500 kg bomb (1)

History

NA

Notes

This newer Japanese dive-bomber featured retractable landing gear and was faster than its predecessor, Val. It would mainly be used during the latter half of the war, though a couple early models reached the fleet in time for the Battle of Midway, with one of the two actually seeing action. As with most Japanese aircraft, the Judy was susceptible to enemy fire and could not take the damage of a comparable U.S. plane.

Torpedo Bombers

When the war began, torpedo bombers were the primary strike plane for the fleets of both the U.S. and Japanese navies. The torpedoes they carried hit the target ship below the waterline, causing severe damage. However, torpedo bombers were extremely vulnerable to enemy defenses. In order to deliver their payload, they had to fly slow, straight, and level before they dropped the torpedo, making them easy targets for enemy AA gunfire and fighters.

Torpedo bombers were most successful during surprise attacks when the targets were unable to put up much of a defense. Furthermore, the torpedoes at the war's beginning often failed to detonate on impact or had other problems. It was not until the latter part of the war that the improved torpedoes and newer bombers made this type of strike aircraft much more effective.

U.S. and Allied Torpedo Bombers

Douglas TBD Devastator



Stats

Crew: 2
Length: 35'
Wingspan: 50'
Max Speed: 311 mph

Armament

.30 cal machine gun (1)
Torpedo (1)

History

The Devastator has been in service with the U.S. Navy as a carrier-based torpedo bomber since 1937. When it entered service, it was the most advanced plane of its type in the world; however, the rapid advancement in aviation technology meant that the Devastator is now considered obsolete and was replaced in early 1942 by the TBF Avenger.

Notes

The Devastator was a pioneer in carrier aviation. It was the first monoplane to be widely used by the U.S. Navy and the first all-metal plane as well. In addition to having the ability to fold its wings using hydraulics—allowing for easier storage both on and below deck—it also was the first U.S. naval plane with a completely enclosed cockpit. By the time the war started, the Devastator was outclassed by all other planes.

Devastators succeeded in sinking the Japanese carrier *Shoho* during the Battle of the Coral Sea. However, during the Battle of Midway, only four of the 46 Devastators launched by the three U.S. carriers returned. Not one torpedo struck its target.

Grumman TBF Avenger



Stats

Crew: 3
Length: 40.90'
Wingspan: 54.15'
Max Speed: 311 mph

Armament

.50 cal machine guns (2)
Torpedo, 1,000 lb bomb,
or depth charge (1)

History

The TBF Avenger is a three-seater aircraft that is due to enter service in early 1942, replacing the TBD Devastator as the Navy's main carrier-based torpedo bomber. Simple in construction, it will be the largest single-engine aircraft in service anywhere in the world. Stable in flight and capable of carrying a variety of payloads, including torpedoes, bombs, and depth charges, the Avenger's main weakness is its slow speed, which makes it vulnerable to both fighter attack and AA fire.

Notes

The Avenger was a much better torpedo bomber than the Devastator. The Avengers were first used in a main battle in the Eastern Solomon Islands where they sunk the Japanese carrier *Ryujo*. They also sunk the battleship *Hiei* during the Naval Battle of Guadalcanal. George H. W. Bush, who later became president of the United States, flew an Avenger during the war and received a Distinguished Flying Cross for hitting his target before he was shot down.

Fairey Swordfish



Stats

Crew: 2
Length: 32.67'
Wingspan: 41.52'
Max Speed: 311 mph

Armament

5"/25 gun (1)
M2 .50 AA gun (1)

History

NA

Notes

While outclassed by every other plane in the Pacific theater, the Swordfish was used effectively by the Royal Navy in the early years of the war. Swordfish launched from the HMS *Illustrious* sunk several Italian warships at port during the Battle of Taranto in November 1940, effectively crippling the Italian fleet. This surprise is often cited as influencing the Japanese attack plans for Pearl Harbor.

Swordfish also took part in the attack against the German battleship *Bismarck*, damaging the ship's rudder and preventing it from escaping from a Royal Navy fleet, which finished the job.



Japanese Torpedo Bombers

Nakajima B5N "Kate"



Stats

Crew: 3
Length: 33.78'
Wingspan: 50.91'
Max Speed: 311 mph

Armament

7.7 mm machine guns (2)
Torpedo or 500 kg bomb (1)

History

Known to the Japanese as the "Type 97 Carrier Attack Bomber," this plane has been in service with the Imperial Japanese Navy (IJN) as a torpedo bomber since 1939. Like the British Swordfish and the American Devastator, it is now considered obsolete and is due to be replaced by the B6N. It has seen combat in the Sino-Japanese War, where it was somewhat slow and poorly protected. As a result, it has received an engine modification. It is primarily used as a torpedo bomber but can also be equipped with a bomb load.

Notes

The Kate was the main Japanese torpedo bomber during the war. It was very successful during the attack on Pearl Harbor. Since aerial torpedoes dive under the water before coming back to the surface after being dropped, the Japanese were worried they would hit the bottom of the shallow harbor and detonate before they could hit their target. Wooden attachments were added to the rear of the torpedoes for this attack to keep them from diving so deep.

Medium and Heavy Bombers

These aircraft are also referred to as "level-bombers" since they fly straight and level while dropping their bombs. While this is less accurate than dive-bombing, medium and heavy bombers carry a larger bomb load and drop their ordnance all at once, creating a line of explosions on the ground and improving the chance of a hit. Because of their size, these bombers are not very maneuverable and rely on their defensive machine guns and escorting fighters for protection. In order to avoid AA fire, they often fly at high altitudes.

These larger multiengine bombers were the product of the air visionaries between the wars. While some were designed for antishipping and performed this well, medium and heavy bombers were primarily used for attacking ground targets and did a great job of destroying airbases and sea bases.

U.S. Bombers

Boeing B-17 Flying Fortress



Stats

Crew: 10
Length: 74.32'
Wingspan: 103.68'
Max Speed: 273.68 mph

Armament

.50 cal machine guns (13)
450 lb bombs (10)

History

Since 1938, the B-17 has been the USAAF's main heavy bomber. Capable of carrying an 8,000 lb payload of bombs nearly 2,000 miles, it is ideally suited to service in the Pacific. The B-17 is a very robust aircraft, capable of sustaining vast damage and still remaining airborne. It has received the nickname "Flying Fortress," thanks to the 13 turreted .50-caliber machine guns it carries for defense. A formation of B-17s is a formidable prospect for an attacking fighter pilot.

Notes

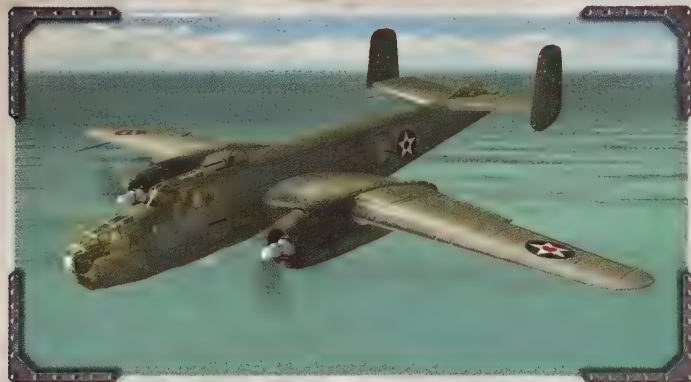
B-17s are very powerful bombers that can deliver a lot of firepower onto a target. A flight of two or three will easily take out an enemy airbase or shipyard and can cause a lot of damage to enemy ships, including carriers. Though they are well armed with machine guns, if possible, send them along with some fighter escort if you expect the enemy to put up some fighters. Otherwise, put as many as you can into a single squadron so there will be a lot more defensive firepower collectively.

B-17s can also be used in a pinch to help defend your fleet or ground installations. While not great

against fighters, they can be effective for shooting down dive-bombers and torpedo bombers. Just order them to attack incoming waves of these light bombers as a supplement to your own fighter CAP.

The B-17 was initially designed to help the USAAF defend the U.S. coasts. In order to gain some additional funds from the prewar defense budget, the USAAF lobbied the War Department for a long-range bomber with a heavy payload that could be used to patrol the coastline and sink any enemy ships before they could threaten the United States. During a demonstration in 1921, General Billy Mitchell had already proved that a bomber could sink a battleship. Since long-range fighters did not appear until the middle part of the war, the B-17 was built to defend itself during a mission. It could fight off enemy fighters and could take a lot of damage and still make it home.

North American B-25 Mitchell



History

The B-25 is a medium bomber that has been in service with the USAAF since early 1941. It has already gone through several redesigns. The latest version, the B-25D, has been given three forward-firing .50-caliber machine guns, which, alongside its 3,000 lb payload, make it an excellent plane for attacking enemy shipping.

Notes

On April 18, 1942, 16 modified B-25 bombers took off from the USS *Hornet* and made a surprise bombing raid on Tokyo. Led by Lieutenant Colonel Jimmy Doolittle, the raid did not cause much material damage. However, it did force the Japanese to recall some of their air units for home defense that could have been used during the Japanese expansion during the first year of the war. At home in the United States, the raid immensely raised morale and was viewed as the beginning of revenge for the attack on Pearl Harbor. Doolittle was awarded the Medal of Honor and promoted to a brigadier general.

Due to the forward-facing machine guns, the B-25 can strafe surface targets such as cargo ships and PT boats. However, it is not maneuverable to use as a fighter. Fighters should escort B-25s if the enemy has fighters defending the target.

Stats

Crew: 5
Length: 52.91'
Wingspan: 67.57'
Max Speed: 311 mph

Armament

.50 cal machine guns (10)
450 lb bombs (6)

Japanese Bombers

Mitsubishi G3M "Nell"



Stats

Crew: 5
Length: 53.96'
Wingspan: 82'
Max Speed: 311 mph

Armament

7.7 mm machine guns (3)
 250 kg bombs (6) or
 one torpedo

History

The first prototype for this twin-engine bomber flew in 1935, and it entered full production in 1936, making it a veritable pensioner in comparison to other modern bombers. Nevertheless, it is considered an excellent aircraft and is particularly notable for its long **Range**: It was the first plane to perform a transoceanic attack when it was used to bomb mainland China during the Sino-Japanese War. However, it carries very little defensive armament and is vulnerable to fighter aircraft.

Notes

Unlike U.S. bombers, the Nell lacks a lot of defensive armament and durability and relies on speed and fighter escorts for its protection. When attacking a Nell, try to come at it from a higher altitude and dive down on it from the side or rear. The engines are vulnerable, so aim at one of them rather than the plane's fuselage.

Mitsubishi G4M "Betty"



Stats

Crew: 7
Length: 65.6'
Wingspan: 82'
Max Speed: 311 mph

Armament

7.7 mm machine guns (3)
 20 mm machine guns (2)
 250 kg bombs (8) or
 one torpedo

History

Known to the Allies by the call sign "Betty," this plane is nicknamed "Hamaki" or "Cigar" to the Japanese servicemen, thanks to its cylindrical shape. It was commissioned in 1937, following the successful deployment of its predecessor, the Nell, in China. Very high specifications were set for the Betty in terms of top speed, altitude, and range. The result was an aircraft with very good performance. However, to achieve these specifications, it was necessary for the design team to make the plane very lightly armored, making it very vulnerable to enemy fire.

Notes

Common to many Japanese military airplane designs of the period, performance took precedence over the crew's protection. Speed and payload replaced armor with the idea that a plane that is harder to hit is better than one that can withstand

more damage. Also, the Betty's specifications were based on the results of the Nell in combat over China. However, the Americans posed a completely different type of threat than the Nationalist Chinese forces. U.S. fighters such as the F4F Wildcat had no trouble shooting down these bombers.

Admiral Yamamoto, the architect of the attack on Pearl Harbor, took part in the Betty's design. He wanted a bomber with long range that could be based on islands and still be able to support the Japanese fleets against U.S. fleets advancing on Japanese territory. He believed that the Zero, which was also designed for long range, would provide all the protection necessary for the bombers.

On April 18, 1943, Yamamoto was flying aboard a Betty on an inspection tour of Japanese forces in the Solomon Islands. U.S. naval intelligence had cracked the Japanese code and learned of the trip. A U.S. squadron of P-38 fighters was sent to ambush and shoot down the Japanese admiral. Unfortunately for Yamamoto, the six escorting Zero fighters could not stop the American pilots from achieving their objective.

Reconnaissance Planes

U.S. Reconnaissance Planes

Consolidated PBY Catalina



Stats

Crew: 7
Length: 63.86'
Wingspan: 103.97'
Max Speed: 311 mph

Armament

.30 cal machine guns (3)
 .50 cal machine guns (2)
 Torpedoes or depth charges (2)

History

The Catalina is a venerable aircraft, having been in service since 1936. It is an excellent design and has been produced in greater numbers than any other flying boat. It is used in many roles, such as reconnaissance, transport, search and rescue, and convoy escort. It is also particularly valuable against submarines, especially since the introduction of sonobuoys, which allow the Catalina to detect submerged submarines and attack them with depth charges.

Notes

Like a destroyer, the Catalina has sonar capability. When looking on the tactical map while in command of a Catalina, you will notice the green ring showing its sonar range. If you expect trouble from enemy subs, keep a Catalina nearby on antisubmarine patrol. Order it to move ahead of your fleet. If armed with depth charges, Catalinas can even sink a sub.

The Catalina also carries two torpedoes, which are useful against surface targets. However, use them only for transports since a Catalina comes in slow and will be shot down by warships' AA guns.

Catalinas are best used to look for enemies and then stay in position so strikes can be ordered against the enemy fleet. Assign a few fighters to escort a Catalina when searching for carriers, which will launch fighters to shoot down your recon plane.

Japanese Reconnaissance Planes

Aichi E13A "Jake"



Stats

Crew: 3
Length: 37.06'
Wingspan: 47.56'
Max Speed: 311 mph

Armament

7.7 mm machine gun (1)
 250 kg bombs or depth charges (2)



Planes

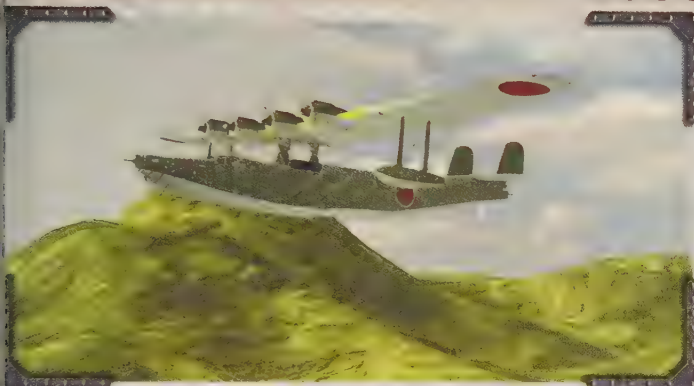
History

This three-seater floatplane came into service and made its combat debut over China in the autumn of 1941. They are usually carried aboard cruisers or seaplane tenders, from which they are launched by steam catapult. They are primarily used for reconnaissance, though they can also play an antishipping role when armed with a 250 kg bomb, which is effective against any small warship. They are easy meat for fighter planes, however, thanks to their slow speed, poor maneuverability, and very light defensive armament.

Notes

While the U.S. Navy used flying boats such as the Catalina (which could be based at islands without the need for runways) or bombers based on carriers for reconnaissance duty, the Japanese preferred to keep their dedicated recon planes with their fleet. The Jake had a shorter range than flying boats yet lacked the combat capability of carrier-based bombers. The large pontoon floats that allowed it to land on the water to be recovered aboard its cruiser or seaplane tender severely limited the Jake's performance and made it an easy target for Allied fighters.

Kawanishi H6K "Mavis"



Stats

Crew: 9
Length: 84.07'
Wingspan: 131.20'
Max Speed: 311 mph

Armament

7.7 mm machine guns (4)
Torpedoes or depth charges (2)

History

This huge flying boat, with a wingspan 50 percent longer than the B-17 bomber, is considered an excellent transport and reconnaissance plane. Known to the Japanese as the "Type 97 Flying Boat," it can carry a payload of two torpedoes, a 2,205 lb bomb load, or 16 passengers. However, there are strong concerns over its suitability for frontline operations thanks to its very light armor and lack of self-sealing fuel tanks.

Notes

The Mavis appears like a boat suspended beneath a gigantic wing. With four engines, this plane can easily carry a combat payload. However, it is not very maneuverable and should be used only for reconnaissance or antisubmarine operations. Keep it out of action and away from enemy fighters.

Kawanishi H8K "Emily"



Stats

Crew: 10
Length: 92.27'
Wingspan: 124.64'
Max Speed: 311 mph

Armament

7.7 mm machine guns (3)
20 mm machine guns (3)
Torpedoes or depth charges (2)

History

This new flying boat design entered service as a replacement for the aging H6K Mavis. Designed to be faster, longer-ranged, and better-defended than its predecessor, the Emily is thought to be the finest flying boat in service with any country. It is useful in a variety of roles and can be armed with torpedoes to attack shipping or with depth charges to attack submarines.

Notes

The Emily is more rugged than the Mavis and is better all around. It is also better defended, so Allied fighters should approach it as they would a bomber rather than a typical flying boat.

Mitsubishi F1M "Pete"



Stats

Crew: 2
Length: 31.16'
Wingspan: 36.08'
Max Speed: 311 mph

Armament

7.7 mm machine guns (2)

History

Although designed in 1935, this two-seater biplane didn't enter service until 1941, making it one of the very few biplanes in active service with any country in WWII. Nevertheless, it is a remarkably able aircraft with a fine turn of speed for a biplane and exceptional maneuverability. Designed to be launched from a ship for a short-range observational role, it has also shown itself to be an adept dive-bomber and has even served in the fighter capacity.

Notes

The Pete's single centerline float and biplane design makes it much more maneuverable than the Jake. The Pete can't carry bombs but can be used to engage enemy bombers in a pinch. Don't put it up against Allied fighters because it won't last long.

Transport Planes

U.S. Transport Planes

Douglas DC-3



Stats

Crew: 3 + passengers
Length: 64.18'
Wingspan: 94.98'
Max Speed: 311 mph

Armament

None

History

Known as "The Plane with a Thousand Names," this transport plane has been in service with civil airlines since 1936 and is given credit for the 600 percent increase in airline passenger traffic since that time. Seeing its potential as a military transport, the U.S. Army commissioned a military version, designated the C-47. Called the "Dakota" by its manufacturer, and the "Skytrain" by the USAAF, it is an incredibly versatile aircraft used for a number of roles, including reconnaissance, glider towing, and paratrooper carrier.

Notes

Over 10,000 of these aircraft were built and were vital to the Allied success in WWII. General Eisenhower claimed the C-47 was the plane that won the war. It was extremely useful during the Pacific campaign for transporting troops between islands and for keeping those troops supplied. The C-47 would serve in WWII, and in the Korean and Vietnam Wars. The commercial version of the Dakota was named the DC-3 and was one of the most popular airliners of all time. Many DC-3/C-47s are still in service commercially around the world—a testament to their ruggedness and reliability.

Plane Weapons

Guns

Guns are the primary weapon for fighters and are secondary weapons for all types of bombers. As a pilot, you can fire the forward-facing machine guns that most planes have, with the exception of some reconnaissance planes and level-bombers. In order to aim these weapons, you must point the plane at the target.

M1919 0.50" Machine Gun



Range: 0.43 nm/800 m
Damage: 14
Rate of Fire: 600 RPM

The M1919 is the air-cooled version of the Browning M1917 machine gun and is a venerable design, tracing back its origins to John Browning's 1901 patent for a recoil-powered automatic gun. Originally an infantry weapon, it is also widely used in an anti-aircraft role, where it can be found in the wings of fighter planes, in the turrets of bombers, and on warships and submarines.

20 mm Type 99MI Autocannon



Range: 0.43 nm/800 m
Damage: 20
Rate of Fire: 600 RPM

These weapons fire explosive shells that can cause massive damage to the airframes of enemy planes, making them far more effective against air targets than machine guns. They can be found in the wings of A6M Zeroes and in the turrets of bombers and flying boats.

Bombs

Bombs are the main ordnance carried by bombers and optionally by some fighters or reconnaissance planes. They are effective against surface ships and ground targets.

1,000 lb/500 kg Bomb



Range: N/A
Damage: 260
Blast Damage: 100

These heavy bombs are employed by both sides to equip dive-bombers. The combination of precision, weight, and high-impact speed makes them formidable weapons. Only the very heaviest battleship armor can resist them, and they are capable of destroying small ships with a single hit.

450 lb/250 kg Bomb



Range: N/A
Damage: 200
Blast Damage: 75

These bombs are used by medium and heavy bombers for carpet-bombing raids and are usually dropped in large numbers to maximize the chance of a hit. They are sufficiently powerful to cause damage to any ship if the bomber is accurate enough to hit a moving target.

200 lb/100 kg Bomb



Range: N/A
Blast Damage: 100

Both the IJN and the United States Navy (USN) keep supplies of small bombs such as these for attaching to fighter and recon aircraft, turning them into ersatz strike planes. They are useful against ground targets and lightly armored units such as cargo ships and destroyers, but they will make no impact on any ship of cruiser size or larger.

Torpedo

Torpedoes allow planes to cause serious damage to enemy ships. However, the method by which they must be delivered can be dangerous to the plane and crew since they must fly low and slow, launching fairly close to the target while withstanding the AA gunfire throughout the process.

Aerial Torpedo



Range: 1.35 nm/2,500 m
Damage: 250
Blast Damage: 50

Given the potency of the torpedo as a weapon, it is little surprise that all combatants have developed plane-dropped versions. Aerial torpedoes tend to have smaller warheads and shorter ranges than ship-launched ones, which would be too heavy for most attack planes to carry. Nevertheless, aerial torpedoes are still excellent weapons and are capable of penetrating the armor of any ship afloat.



Air Tactics



There are several different types of planes you can control in the game. Each has their own special role that requires specific tactics in order to effectively bring destruction to your enemy.

Air-to-Air



Use the small reticules to line up your shot and lead your target.

Fighters are the king of air-to-air combat. The weapons for this are machine guns and autocannons, which inflict damage on an enemy aircraft until it can no longer stay in the air. The best way to approach an enemy aircraft is from behind. This is usually the area of the aircraft with the least amount of guns and gives you the most time to shoot at the target since head-on attacks only let you get in a few shots before the enemy blows by.

Use the small white reticules to guide your shots. They show you where to aim in order to lead the target and get a hit. In addition, don't get too close to the target or a sudden turn will let them slip out of your sights before you can turn to stay on its tail. In order to maintain this optimal distance of between 0.1–0.2 nm, you must adjust your throttle.

Bombers usually fly straight, making them easy targets. However, enemy fighters will turn, climb, and dive in an effort to get on your tail and shoot you down. When it comes to this type of fight, decrease your throttle so you can make tighter turns. Also, fire as soon as the enemy gets anywhere near your crosshairs since he won't stay there long and you have to take what shots you can.

Strafing



You can strafe ships and even the airplanes on a carrier's deck.

Strafing entails using your forward machine guns to attack a ground target. This is only effective against some ground installations such as AA guns or lightly armored ships such as transports and PT boats. Fighters work best for this role since they have more guns. However, a torpedo or dive-bomber can also perform strafing runs—especially after dropping their ordnance—to finish off light ships. You cause the most damage when strafing by diving down to hit the ship's deck rather than coming at the side and hitting the hull. The dive doesn't have to be steep—just enough to see and hit the deck. Be careful to pull up so you don't crash.



Dive-Bombing



Aim toward the ship's bow and release in close. Be sure to watch your bomb hit.

The skill in dive-bombing is in knowing when to begin the dive and when to release so you can maximize your accuracy and still have enough time to pull out of the dive so you don't crash into your target. Fly straight toward your target, preferably so that your flight path is along the bow-to-stern axis. Use your Bomb Mode view to watch the target as you approach. When your crosshairs move past the target, begin your dive. Aim toward the ship's bow so that your bomb does not fall short.

The closer you are to the target when you release, the more likely the bomb will hit the area under the crosshairs. If you hold down the Fire button after you drop, your view will follow the bomb, so you can see if you got a hit. The plane will automatically pull out of the dive—if you didn't release too late. By practicing dive-bombing, you can learn just how close you can get to the target and still be able to pull out.

Level-Bombing



Level-bombing is used by medium and heavy bombers.

When press and hold down the Fire button just before the crosshairs are over the target. Your bomber will drop a load of bombs across the target area.

When attacking enemy ships, approach from the bow or stern and make your bombing run along this axis. This maximizes the number of bomb hits—hopefully hitting along the length of the ship and causing some serious damage. However, if the ship turns, you may miss altogether. Coming in from the side increases your chance of a hit but also

Level-bombing is the easiest of the three bombing modes. The key is to stay flying level and in a straight line as you approach the target. Use the Bomb Mode view to aim the crosshairs. Turn with the rudder controls to line up the target,

guarantees most of your bombs will miss, hitting either side of the ship. Perform level-bombing from high altitude in order to avoid enemy AA gunfire from the surface.

Torpedo Bombing



Come in low and slow, aiming toward the ship's bow so that as the target continues to move, your torpedo still hits its target.

Shots from the front are best for smaller targets since they are traveling toward the torpedo, decreasing the time and distance to impact as well the target's time to react.

Unlike torpedoes fired by ships, subs, or PT boats, aerial torpedoes do not turn to a set bearing. Instead, they travel in a straight line. Therefore, when aiming a shot, you must lead the target. The key to dropping a torpedo is to come in low and slow. Cut throttle to about half, and once down near the surface, adjust your aim with the rudder controls. When you are about 0.2 nm from the target, release the torpedo. Hold down the Fire button to follow the torpedo as it heads to the target, and verify your hit—or miss.

It is best to approach from the side of a target ship and aim at the bow. However, coming in at an angle off the bow in a head-on attack can limit the amount of maneuvering the target can make to avoid your attack. This type of approach works best on smaller ships such as destroyers, which are fairly maneuverable.

Dropping Depth Charges



Depth charges are just like bombs, so drop them in the same way.

Some bombers can also carry depth charges for use against submarines. This is the best method for dealing with subs since they have no way to return fire unless they surface. Dropping depth charges is just like making a level-bomb run. Use the Bomb

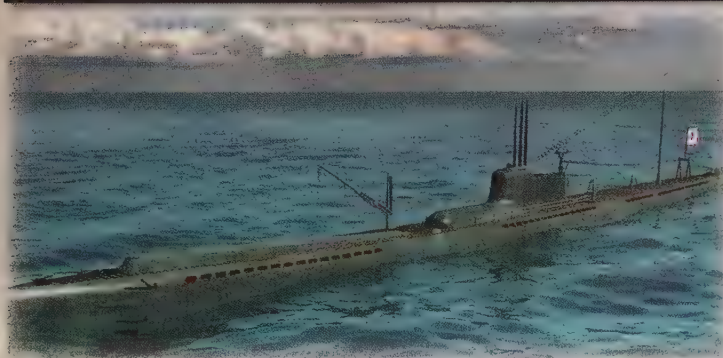
Mode view and fly right over the target, dropping the depth charge using the target bracket as an aiming point.

Submarines

Submarines make up the third type of unit you command during the naval campaign in the Pacific. Compared to surface ships and planes, submarines require a bit more skill and patience in order to use them successfully. However, in the hands of a capable commander, a single submarine can inflict a lot of damage on a larger enemy force.



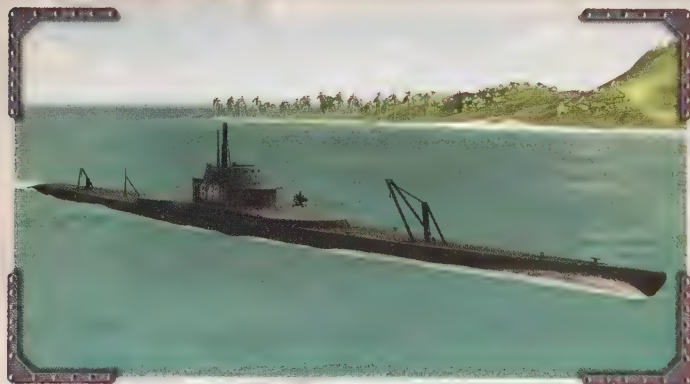
The Submarine



There are only three types of submarines available in the game. While they do not play much of a role during the campaign, the submarine challenge missions allow you to really explore this type of vessel and experience a unique type of warfare. During multiplayer games, a submarine can be an important part in an overall strategy by hitting the enemy while they are concentrating on surface and air engagements.

U.S. Submarines

Narwhal Class



Stats

In Service: 1930
Displacement:
 2,730/ 3,960 brt
 (Bruttoregistertonnen)
Dimensions: 371' x
 33'3" x 15'9"
Crew: 88
Speed: 30 (surface)/25
 (submerged) kt
Armor: 20

Weapons

5"/25 gun (1)
 M2 .50 AA gun (1)
 Torpedo tubes forward (4)
 Torpedo tubes aft (2)

History

Built in the late 1920s and commissioned in 1930, this submarine class was designed for hunting down enemy commerce ships, either with its deck-mounted 5" gun or with its six torpedo tubes. Like all submarines, it is very vulnerable when on the surface, thanks to its lack of armor and fire-power, but submerged it is a danger to any ship.

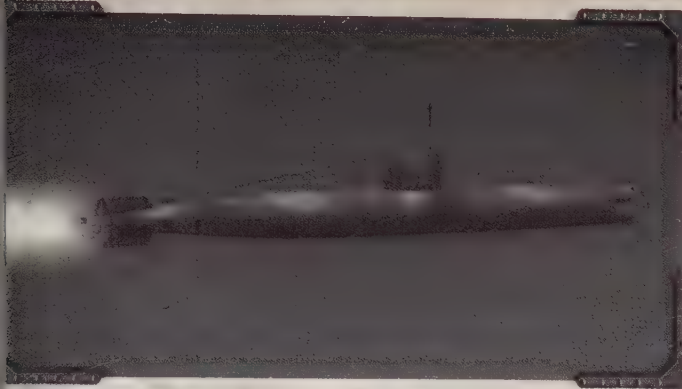
Ships in class: Narwhal, Tautog, Nautilus

Notes

The Narwhal is the only class of submarine available to the United States. Its speed, even while submerged, allows it to keep up with most enemy vessels with the exception of destroyers and patrol boats. Admiral Nimitz, the supreme naval commander in the Pacific theater, knew that his submarine fleet was the only way to take the enemy in the early part of the war until the U.S. fleets could be strengthened enough to push back against the Japanese fleet. The submarine fleet was sent to operate essentially behind enemy lines and attack the cargo ships and transports needed to supply resources to the Japanese war industries as well as to carry troops and supplies needed by the Japanese army and navy.

Japanese Submarines

Type A Minisub



Stats

In Service: 1938
Displacement: 46 brt
Dimensions: 78' x 6' x 6'
Crew: 2
Speed: 25 (surface)/12.5 (submerged) kt
Armor: 10

Weapons

Torpedo tubes (2)

History

The Type A minisub is a top-secret Japanese weapon. Code-named the "Kato" and built in 1938, its small size allows it to creep into enemy harbors to attack ships at anchor—something that would be difficult or impossible for a normal-sized submarine due to the shallow waters of most harbors. Armed with two torpedoes and manned by a two-man crew, this craft is potentially devastating in its dedicated role, but useless for any other kind of task.

Ships in class: N/A

Notes

The Type A is only good for attacking enemy ships at anchor such as the US fleet at Pearl Harbor. Its small size allows it to stealthily move through areas where submarines would not be expected. The minisub should not be used out in the open ocean since it has only two torpedoes and no defenses.

Type B Submarine



Stats

In Service: 1940
Displacement: 2,584/3,654 brt
Dimensions: 356'5" x 30'5" x 16'8"
Crew: 94
Speed: 30 (surface)/25 (submerged) kt
Armor: 20

Weapons

4"/45 gun (1)
 7.7 mm Type 97 AA gun (1)
 Torpedo tubes forward (4)
 Torpedo tubes aft (2)

History

The Type B is the most numerous and modern submarine design in service with the IJN (Imperial Japanese Navy). Only coming into service in 1940, these are fast, long-ranged ships, and every bit the match of the U.S. Narwhal-class subs. Like all submarines, they are very vulnerable when on the surface, thanks to their lack of armor and firepower—but submerged, they are a danger to any ship.

Ships in class: I-15, I-21, I-23, I-25, I-26

Notes

The IJNs built the Type B as a cruiser submarine designed to engage the American fleet as a first line of defense against an Allied push into the territory captured during the war's early months. These subs were intended to sink at least 10 percent of the U.S. ships in order to soften them up for additional attacks as the Allies came into range of land-based aircraft and the IJN fleets of carriers and battleships. These cruiser submarines could even be replenished at sea by other submarines designed to carry fuel and other supplies—allowing the cruisers to remain on station for extended periods of time.

Submarine Weapons

Torpedo

The torpedo is the single most potent antiship weapon in any nation's arsenal. Consisting of a large explosive warhead attached to a self-contained engine, it can be fired from a ship no larger than a PT boat; yet it contains enough explosive power to damage or destroy even the most heavily armed warships. Torpedoes are particularly potent, in that they inflict damage below the waterline. This not only magnifies the explosive's effect, but also guarantees breaching the target's hull.

Range: 1.35 nm/
2,500 m
Damage: 250
Blast Damage: 50

Deck Gun

The deck guns on many submarines fired 5" shells. Their main purpose was to give the submarine more firepower while on the surface. They were intended to attack unarmed or lightly armed merchant ships and transports that did not offer much of a threat to the surfaced sub.

Range: 0.81 nm/
1,500 m
Damage: 120
Blast Damage: 30
Rate of Fire: 11 RPM

Machine Gun

Machine guns were mounted on the decks of many submarines to give them additional firepower when on the surface. They were primarily used in an anti-aircraft role and were often located on the opposite side of the conning tower from the deck gun.

Range: 0.43 nm/800 m
Damage: 18
Rate of Fire: 600 RPM

Commanding a Submarine

Submarines take a special type of sailor. Unlike a battleship captain, a submariner will want to avoid taking damage and use stealth to attack an enemy rather than use raw firepower and might. In addition, since a submarine can move through three dimensions (because it can dive beneath the waves), to some degree it is like flying a plane.



Submarines on the surface are extremely vulnerable to enemy artillery fire.

Maneuvering

A submarine maneuvers very similarly to a ship. The helm allows you to control your speed and heading. Moving the rudder to the right or left turns the submarine. You must center the rudder again to sail directly ahead in a straight line. As with ships, you can set the speed at several settings, including stop, half ahead, full ahead, full back, and speeds in-between.

Depth Levels



While submerged, submarines are safe from all but depth charge attacks.



At periscope depth, you can raise your periscope to see where the enemy is and take aim for your torpedoes.

The difference between ships and submarines is that the latter can dive beneath the surface. To the wheel's left is the depth setting. You can choose from four different depth levels:

1. Depth level 1: On the surface. Here your sub acts as any normal ship. You can fire torpedoes, artillery, and AA guns. Your submarine is extremely vulnerable to enemy fire when surfaced, so surface only when it's clear.

Submarines

Depth level 2: Also known as “periscope depth.” At this depth, you can fire torpedoes but not the weapons located on the deck. Once the submarine is below the surface, depth charges are the only weapon that can damage it. At periscope depth, you can raise your periscope to look for targets. However, be careful when near surface ships. If a ship sails over your sub while the periscope is raised, the periscope may be broken off, preventing you from using it for the remainder of the mission.

Depth level 3: Your submarine is harder for the enemy to hit with depth charges. However, you can't raise the periscope or fire torpedoes. Use the tactical map for navigation, and use the normal view to avoid enemy attacks.

Depth level 4: This depth is below the naval recommendations, as the pressure here will crush your hull. Your submarine will slowly take damage while at this depth level, so don't stay there for long. The only advantage to depth level 4 is that enemy sonar can't detect you—making you invisible to all units, including destroyers and reconnaissance planes.

Note

Submarines are equipped with sonar. Therefore, you can detect both surface and submerged units that are within your sonar range even while you are submerged. This is useful for maneuvering around enemy units at depths below periscope depth or when you don't want to reveal your position with your periscope. Detected units will show up on the tactical map. When at periscope depth with the periscope raised, all ships within visual range will be displayed on the tactical map.

Submarine Combat

The submarine's main weapon is the torpedo. Therefore, in order to engage the enemy, you must master the art of using torpedoes. Unlike ships and planes, which can also attack using torpedoes, submarines fire their torpedoes from tubes located at the bow and stern. Furthermore, submarine torpedoes can be fired on a bearing different from the sub's bearing—about 30 degrees to either side of center.

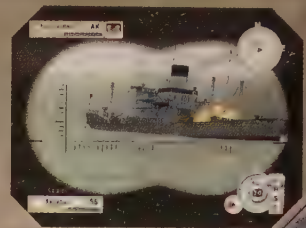


Torpedoes can sink even the most powerful battleship. In fact, the largest ships have no defenses against a submarine except for their destroyer escorts.



Tip

If you are running low on torpedoes and have eliminated all enemy threats to your sub, try surfacing and using your deck gun to fire on enemy cargo ships or transports. Just be careful since some of them are armed with guns as well.



Torpedoes move relatively slowly compared to gunnery, and the target will often be somewhere different from when the torpedo was fired. Therefore, it is important to lead a moving target. This requires you to estimate where the target will be. The greater the distance to the target, the greater the need to fire the torpedo ahead of the target. Once an enemy sees a torpedo in the water, they will almost always take evasive action by turning away from the torpedo or even changing speed. Therefore, it is usually a good idea to get in close. This decreases the amount of time the enemy has to react as well as the amount you need to lead the target. Though a torpedo has a range of over one nautical mile, shots at such a distance will rarely hit a moving target. In order to improve accuracy, limit your shots to targets at less than half a nautical mile.

As mentioned earlier, torpedoes can be given a bearing different from a sub's heading. When aiming the reticule for a torpedo, you are actually setting the torpedo's bearing. After the torpedo is launched, it will travel in a straight line from the tube for a short distance, and then begin a turn until it is headed on the correct bearing. At the same time, it will also head to the surface.



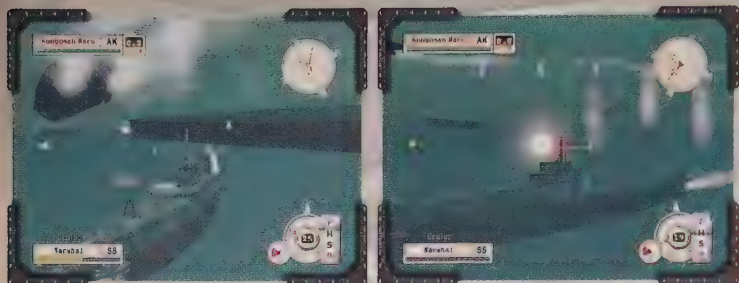
Torpedoes will follow the bearing at which you are aiming when you fire them. If not straight ahead, they will have to turn.

If you fire at a close target at a bearing of more than 15 degrees off the bearing of the launch tube, the torpedo may not have enough time to turn and will end up going around the target. Therefore, try to make shots as close to center with your tubes as possible for great accuracy. This also applies to the time it takes a torpedo to rise to the surface. If a target is too close, such as within 0.1 nautical mile, the torpedo will probably travel right under the target.



Note

Practice is the best way to learn to command a sub. After a while, you will discover how to make your shots count. The submarine challenge missions are great for this.



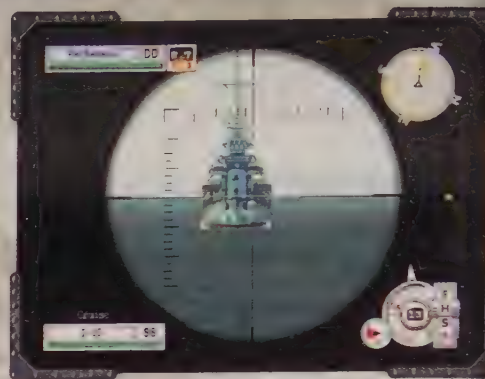
Depth charges are the only threat to a submerged sub. However, they can cause a lot of damage—especially if they detonate close to your submarine.

Just getting a hit on an enemy can be tough in a submarine. However, while you are on a hunt, the enemy above is also trying to kill you. Your main threats are enemy destroyers. They are the only ships equipped with sonar and can detect your submerged submarine. In addition, they carry depth charges, which are the only weapon that can sink a submerged submarine.

There are two ways of dealing with destroyers—sink them or avoid them. If possible, try to sink them early in an engagement to get rid of this threat. It takes a couple torpedo hits to sink a destroyer. The best tactic is to get one to chase you. The destroyer will head straight toward your sub in order to drop depth charges on it. However, this gives you a good target. Turn away from it and sail at full speed so that your aft tubes have a straight shot at the destroyer. Once it is within about 0.2 nautical miles, fire one torpedo. At that range, the destroyer will not have much of a chance to avoid it. If you get a hit, fire your second torpedo to sink it. However, if you miss, turn and run while your tubes reload. You may want to dive to depth level 3 if the destroyer is overtaking you. This will decrease the amount of damage you receive from the dropped depth charges. Just be sure to make a sharp turn so the destroyer does not drop a line right on top of you.

Avoidance is another good tactic. Stay away from the destroyers, especially if your objective is to sink other ships. By staying close to other types of ships, you can use them as obstacles—putting them between you and the destroyers. There is nothing better than having

a destroyer right on your tail and being able to sail under a battleship or transport while the destroyer must sail around it. That can give you time to set up a shot on the destroyer or allow your tubes to reload.



Wait until the destroyer gets closer. It takes only two torpedo hits to sink this threat.

Watch Your Oxygen!

When your oxygen supply onboard your submarine has been depleted, your sub automatically surfaces. If you are near enemy ships, they immediately begin firing on you.

Therefore, watch your oxygen gauge and surface to restore it before it gets too low and while the enemy is at a distance. Just be sure to dive down if you start taking fire and before you take too much damage.



Note

For more information on submarine operations and how to use them as a part of a combined force, see the section on submarines in the following chapter.



The U.S. Campaign

The U.S. Campaign comprises 11 different missions that are linked together to form a storyline following two Americans from the attack on Pearl Harbor through the Battle of Midway. With each successive mission during the course of the campaign, you will advance from controlling a single unit to commanding entire fleets, giving you more responsibilities.



You will follow Lt. Henry Walker, an officer in the U.S. Navy, and his friend Major Donald Locklear, a Marine Corps aviator, through the early battles of WWII in the Pacific.

Stationed at Pearl

Background

Pearl Harbor, 7 December 1941. 0745 hours Zulu time.

Lt. Henry Walker, a recent graduate of Annapolis Naval Academy, has spent the night carousing with his old buddy Major Donald Locklear before the two of them assume new postings.

Henry is receiving his first shipboard posting on the cruiser *USS Phoenix* while Donald, a veteran of the Sino-Japanese war with the American Volunteer Group—"the Flying Tigers"—will soon be en route to Midway Island to join the Marine fighter squadron stationed there.

As the sun comes up on another glorious Hawaiian morning, the two friends muse on what is to become of them.

Tactical Map



Objectives

Primary Objectives

- Go to the *USS Phoenix*
- Survive the first attack wave
- Destroy the enemy minisub
- Take revenge for Pearl Harbor
- Donald must survive

Hidden Objectives

- Shoot down at least 30 planes

Order of Battle

Class	Type	Number
PT	Elco PT Boat	1



Note

Before playing this first mission in the campaign, you should try the following Naval Academy training missions:

- Piloting a Ship
- Manning the Guns
- Piloting a Plane

Mission Walkthrough

Return to the *Phoenix*



PT 23 is yours to command for this mission.



The USS *Phoenix* is your destination.

When the mission begins, you have command of a PT boat. Your first objective is to reach the USS *Phoenix*, which is located to the north of your position. You must sail around the harbor to reach it. Use this time to get used to driving a PT boat. When you are comfortable with the controls, head toward the USS *Phoenix*, which is designated by a blue marker on the screen. As you come near the ship, the objective will be completed.

If you completed the Naval Academy missions covering command of a ship, you will notice the steering on a PT boat is a bit different. Unlike ships where you have to manually center the rudder to stop from turning, the PT boat's rudder automatically returns to center when you release a steering button. In that way, it is similar to a plane's rudder. Also, the PT boat is the fastest surface unit, capable of traveling at 50 knots, and is extremely maneuverable. Once you are comfortable with the controls, head toward the USS *Phoenix*, which is designated by a blue marker on the screen. As you come near the ship, the objective will be completed.

When the mission begins, you have command of a PT boat. Your first objective is to reach the USS *Phoenix*, which is located to the north of your position. You must sail around the harbor to reach it. Use this time to get used to driving a PT boat.

Tour of Pearl Harbor

There is no time limit to reach the USS *Phoenix*, so consider taking a tour of the harbor. The battleships are positioned as they were on that fateful Sunday morning. You can take your PT boat around these vessels. Placing the crosshairs over each will cause the ship's name to appear in the target window in the screen's upper-right corner. You won't have time to look around once the fighting starts, so make the most of it while you can.



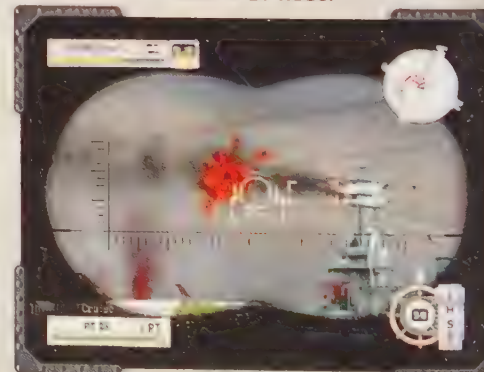
You can cruise right next to the ships on battleship row, including the USS *Arizona* and the USS *Oklahoma*, which both took severe damage during the Japanese attack.

The Attack on Pearl Harbor

As you approach the USS *Phoenix*, Japanese planes appear and begin their attack on the U.S. fleet at Pearl Harbor. Your new objective is to survive this first attack wave. Turn your boat around and head to the southwest so you have a long stretch of harbor. Keep your speed at near full to make yourself a harder target to hit, then take control of the boat's AA guns.



Shoot down the enemy planes attacking the U.S. fleet.



Binocular view will help you hit enemy planes at a distance.

The U.S. Campaign

Although you only need to survive, you can do your best to help shoot down as many enemy planes as possible and prevent them from causing more destruction to the U.S. fleet. Try using the Binoculars view to improve your aim. However, don't stay in this view too long since you lose your peripheral vision and can't tell where your boat is headed. Check your course occasionally, and as you near the end of battleship row, turn around and head back to the northeast, shooting down enemy planes as you go.

Note

Be sure to watch where you're going. The PT boat is fast and can cover distances quickly. Avoid collisions with ships or docks to prevent taking damage to your boat.



Head toward the enemy minisub when you spot it.

As the enemy attack seems to get a bit lighter, one of your crewmen spots a periscope in the water. A Japanese minisub has penetrated the harbor and is trying to attack the U.S. ships. Luckily your PT boat is carrying depth charges.

Your new objective is to sink the enemy sub. A gold marker indicates the sub's location. Turn toward it, center your crosshairs over it, and press the Target button. This sets the sub as your target, and white and gold brackets appear on the water over the sub's location. Press the Switch Weapons button until you have control of the depth charges. Notice that your crewmen on the AA guns automatically begin firing at nearby enemy planes, leaving you free to concentrate on the sub.

Since the sub is targeted, the target window shows you the distance to the target. Open up the engines and face toward it at full throttle. As you come within 0.2 nm, slow down to half throttle or less and keep your boat centered. Your



Drop depth charges before and as you pass over the minisub.

depth charges drop off the back of your PT boat, so the crosshairs has nothing to do with aiming—it just indicates that you control the depth charge racks. Before you reach the sub, begin dropping depth charges. As you pass over it, keep dropping them by pressing the Fire button. If you don't sink it on your first run, turn around and drive right over the minisub again, dropping more depth charges. Keep at it until your crew indicates you have sunk the minisub and completed one more objective.

Time for Revenge



Shoot down some enemy bombers. Aim at the reticules that show you where to aim to lead the target.



Get as many kills as possible during this phase of the mission.

After you sink the minisub, you automatically switch from Henry on the PT boat to Donald in a P-40 Warhawk, flying in pursuit of the Japanese air squadrons as they return to their carriers. Press the Target button to bring up targeting brackets over the closest squadron in front of you. These are bombers. Increase your throttle to full to catch up to them. As you come into range, little white reticules appear near the brackets. These indicate where you must aim in order to lead and hit the targeted plane. Therefore, aim at these reticules rather than the plane itself. If no reticule appears, you don't need to lead the plane with your aim and can fire directly at it. Since the bombers are quickly heading back to their carriers, they are fairly easy targets to shoot down and don't maneuver much.



Tip

The best distance for following an enemy plane is between 0.1 and 0.2 nm. Any farther away and you will have difficulty getting hits. On the other hand, if you get too close, it is easy to fly past them if they make a sudden turn. Since you will usually be approaching the enemy bombers at full throttle to catch up to them, decrease throttle as you near them in order to stay at this ideal distance. If the enemy makes a sudden turn, you have enough time to follow it and stay on its tail until you shoot it down.



There are also some Zeroes in the air. These enemy fighters maneuver a lot and try to shoot you and your wingmen down. If you start taking fire from behind, there is a Zero on your tail. Start turning and press the Target button until a squadron of Zeroes appear in your target window. White brackets will appear over the planes in this squadron. If the Zeroes are offscreen, white markers indicate which direction you must turn in order to center them. To make tighter turns, decrease your speed, but don't slow down too much or you will stall. After eliminating the Zeroes, go after more bombers.



The Zeroes are more maneuverable than the bombers and will come after you.



Keep attacking the enemy even after they land on their carriers.

The bombers will lead you to the Japanese fleet. Your P-40s can't damage the carriers or their escorts, so don't waste time making strafing runs. However, until enemy planes are lowered into the hangars, you can still attack them. Destroying a plane on the deck with a strafing run still counts as a kill. Just be careful not to crash into the carrier or the ocean while making your attacks. After you shoot down all Japanese planes or they are safely in their carrier hangars, the mission ends.

Medals

If you do a good job shooting down planes in this mission, you can earn both the AA Marksmanship Medal and the Air Medal. The AA Marksmanship Medal requires 100 AA hits as well as the most AA hits in the mission. The hits you make with the PT boat's AA guns qualify you for this medal, so spend time controlling these guns during the first wave of the attack.

The Air Medal requires you to shoot down 20 enemy planes and control a plane for at least five minutes. You should easily get five minutes of flight time during the last part of this mission, and the 20 kills can be a combination of your efforts on the PT boat and in the P-40.

PLAYER AWARDS

Ribbons



Defense of the Philippines

Background

13 December 1941.

Following the devastating Japanese attack on Pearl Harbor and the destruction of his ship, Henry is posted to the Philippines naval base, on the front line of the war against Japan.

Is it here that he meets Admiral Thomas Hart, commander in chief of the Asiatic Fleet. Hart assigns Henry to command a PT boat, part of a squadron led by a charismatic lieutenant named John Kennedy.

A Japanese invasion fleet is soon sighted heading for the base, supported by a large number of aircraft. It's an opportunity for Walker to strike back against the enemy and to prove his ability...if his boat's temperamental engine will start, of course.

Tactical Map



Objectives

Primary Objectives

- Your boat must not be sunk
- Leave the harbor
- The Japanese must not land more than five boats
- Sink the Japanese transport ships
- Destroy all Japanese landing craft

Secondary Objectives

- Completely destroy the first wave of landing boats

Hidden Objectives

- Sink the enemy destroyer
- Destroy at least five level-bombers

Order of Battle

Class	Type	Number
PT	Elco PT Boat	1

Note

If you have completed the previous mission and the training missions suggested for it, you are ready to tackle this one.

Mission Walkthrough

Leave the Harbor



You're stuck in the harbor until you can get the engine started.



The Betty level-bombers are your main target.

When the mission begins, your PT boat, PT 108, is still at the dock—and not going anywhere anytime soon. However, enemy planes are attacking the base. While your crew works to get the engine started, man the AA guns and start dropping Japanese planes. Your main targets should be the G4M Betty twin-engine level-bombers, since they cause the most destruction. You must shoot down at least five of these in order to complete a hidden objective. To cycle through the enemy

units until you find the level-bombers, press the Target button while the crosshairs are not over any unit. You can use Binoculars mode to get a better aim at distant aircraft.



Tip

Focus on shooting down the Betty level-bombers first, since they are a hidden objective. You must destroy at least five of them before you leave the harbor because the bombing runs end as the invasion begins.

In addition to the level-bombers, the Japanese also send dive-bombers and fighters—Judys and Oscars, respectively. The Oscars are the main threat to your PT boat since they try to strafe you. The dive-bombers focus on bigger targets. Keep firing away at the enemy planes, shooting down as many as possible. Eventually your crew gets the engine going. When they do, leave the harbor.



Once the engine starts, give 'er full throttle and head out of the harbor.

An island is located at the harbor entrance, creating two channels. You can exit via either channel, but we recommend using the western channel—on the right—as it is wider, giving you more room to maneuver. Set a course for the channel and then continue to engage enemy planes as you head into the open water. Continue to concentrate on the Betty level-bombers.

Sink the Japanese Invasion Force

After you leave the harbor, you see the Japanese ships that make up the invasion force, including three troop transports; two landing ship, tanks (LST); a destroyer; and several landing craft, personnel (LCP). They disembark from the transports on a regular basis. Lieutenant Kennedy in PT 109 helps you in your efforts. While you do not control this other PT boat, it usually sinks one of the transports and helps take out some of the LCPs. However, don't rely on the other PT boat to help you complete all of your objectives.



Sink the LCPs with AA gunfire.

The LCPs are your first priority. Go after them with your AA guns. It does not take much to sink these light boats filled with Japanese troops. Since they are launching from the troop transports, they will be between the transports and the shore.

After you eliminate the first wave of LCPs, you can use your torpedoes. Your PT boat carries 12 torpedoes with 4 launchers. After you fire off your initial salvo, you must wait to reload each launcher. Therefore, it is important to prioritize your targets.



Tip

The PT boat launches torpedoes at an angle from your heading, and the torpedoes then turn to the bearing at which you aim them. Unless your launcher is facing directly at your crosshairs, it will take some distance for the torpedo to turn. Therefore, always launch at about 0.2 nm to allow for this turn, unless the target is so large your torps will still hit without completing their turn.

While the transports are inviting targets, they are not your biggest threat. Instead, go after the two LSTs. These large landing ships carry tanks and vehicles to the shore and can only be destroyed with torpedoes. It takes only a single hit to sink each of these LSTs. However, they are moving and are not very big targets.



You must use torpedoes to sink the LSTs.

Since you do not know which launchers will fire, it is best to line up your target so your boat is traveling to a point just ahead of it. Use your crosshairs to set the bearing for your torpedo shot. Launch at a position just ahead of each LST and fire from about 0.2 nm. Fire only one torpedo and wait to see if you get a hit. If you miss, adjust your aim based on the results. You may need to lead the target more or less. After you sink one LST, go after the second. You have four torpedoes, so you can miss a couple times while you get a feel for firing torpedoes.



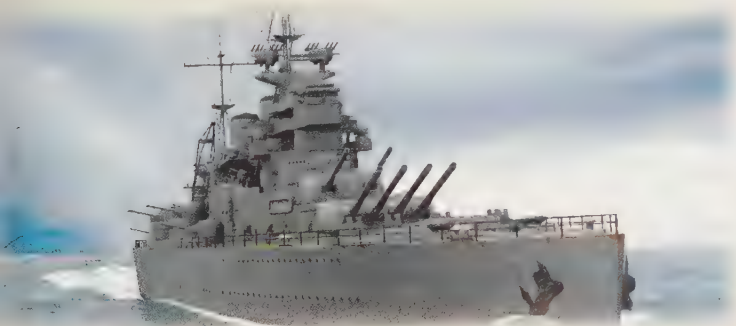
The transports are easy to hit. Just get in close and let loose with a couple torpedoes.

Your next target is the westernmost cargo ship. Since it is closest to shore, its LCPs have less distance to travel to land their troops. Drive at full throttle straight at this transport. Along the way, take out LCPs and pairs of Oscar fighters that continuously try to strafe your boat. If you want to leave it to your crew, switch to torpedoes and the crew automatically fires on enemies with the AA guns. As you approach the transport, drive straight toward the boat's middle. Since it is a straight shot and the target is large, wait until you are at 0.1 nm to fire off two torpedoes. Both should hit and sink the transport. Finish off any LCPs in the area and then head for the second transport.



The LCPs keep coming until all of the transports have been sunk.

Use the same tactics to attack the second troop transport. Or, if you want to achieve another hidden objective, fire only one torpedo at the transport. You want to damage but not sink it quite yet. Continue to sink LCPs and shoot down fighters to keep the area clear.



Tip

You need 8 of your 12 torpedoes to sink all objectives. That gives you four extra torpedoes in case you miss. If you run out of torpedoes, you can load up on 12 more by taking your PT boat back into the harbor and approaching the dock where you began the mission. When the indicator lights on your torpedo crosshairs flash red, you know that your PT boat has more torps and your crew is loading them into the launchers.

Unfortunately, while you head back into the harbor, the enemy may get some of their LCPs to shore. Therefore, before you head in, clear out any that are in your sights, then keep your throttle at full as you head in to resupply. Get back to open water as quickly as possible to continue the fight.

Your next target is a hidden objective is the Japanese destroyer. While you are attacking it, save at least one torpedo for finishing off the last transport. The destroyer is firing its artillery at shore targets. It takes two torpedo hits to sink the destroyer. However, it is much tougher to hit since it can maneuver out of the way. The best tactic is to make sure you have at least two torpedoes ready to fire and then approach the destroyer from its side. Aim your first shot at the bow and fire at

about 0.2 nm. Keep heading at the destroyer and line up the second shot at its rear before turning away. Often the destroyer reverses engines to back away from the first shot and moves right into your second shot.

Unless both torpedoes hit, you will need to make another run. If you have more torpedoes loaded, make the attack run now. Otherwise, go after LCPs while you are waiting for your crew to reload the launchers. The second run



The destroyer can be tough to hit with a torpedo since it tries to avoid them.



A second hit sends the destroyer to the bottom.

should be easier since the damaged destroyer will not be able to maneuver as much. Aim for the destroyer's center and fire at about 0.2 nm. This should give you a hit and sink the destroyer.

All that remains is to finish off the last transport. You need one more torpedo to do the job. As before, clear out any LCPs, starting with those closest to the shore first. Then make your run on the transport. Aim at the center and launch at 0.1 nm.

While it is sinking, finish off any LCPs that are still in the water to complete the mission.



Finish off the last transport and any remaining landing craft.



Note

You can earn an AA Marksmanship Medal in this mission because you will be shooting down several planes throughout the mission. All you need is 100 AA hits.



Tip

It is a good idea to play this mission a few times to practice using torpedoes. The fighters are your only threat, and as long as you sink the LSTs first and keep the LCPs from landing, you can reload your supply of torps at the dock and keep firing away. The destroyer provides a good target since it is small and will maneuver away from your shots.

Lt. Kennedy and PT 109



Lieutenant (junior grade) John F. Kennedy, who later became president of the United States, served as a PT boat skipper during WWII. The event that made him and PT 109 famous took place in the early morning hours of August 3, 1943, off

the island of Tulagi during the Guadalcanal campaign. PT 109 was ordered out on a night attack against the Tokyo Express, the nickname given to the enemy destroyers that carried in troops and supplies to the Japanese forces on Guadalcanal.

While idling on one engine so the boat would not create a wake that might attract enemy planes, PT 109 was rammed by a destroyer before the PT boat could get its engines up to speed to set up a torpedo attack. PT 109 split in half and exploded, killing two of the crewmen. Kennedy was able to get the rest of his crew to a small island three and a half miles away, where they thought they could hide from Japanese troops that had camps throughout the area. It took four hours to reach the island. Kennedy, who swam competitively at Harvard, held the strap of a life vest in his teeth as he towed a badly burned crewman. After his crew was safely ashore, Kennedy then swam to other islands to look for food and help.



Running the Palawan Passage

Background

20 December 1941. 0745 hours Zulu time.

Henry fought heroically, but it was not enough to hold back the Japanese military's might. All U.S. ships and personnel are ordered to withdraw, and Henry—newly promoted to commander and in charge of a Clemson-class destroyer—is tasked with escorting the convoys as they flee south and east.

It's dull work, and Henry is frustrated—until he receives mysterious orders to rendezvous with another U.S. ship on the other side of a narrow strait, which Japanese forces are heavily defending.

His abilities will be tested to the limit as, outnumbered and outgunned, he attempts to run the Palawan Passage.

Tactical Map



Objectives

Primary Objectives

- Reach the strait's other side
- Annihilate the enemy destroyer
- Your unit must survive

Secondary Objectives

- Destroy the Japanese recon base
- Take out the PT boat base

Hidden Objectives

- Meet with the Allied submarine within 17 minutes
- Destroy all cargo ships

Order of Battle

Class	Type	Number
DD	Clemson-class destroyer	1

Note

Before playing this mission, try the following Naval Academy training missions:

- Previously suggested training missions
- Tactical Map
- Dealing with Emergencies

Mission Walkthrough

Into the Strait

Move quickly during this mission. There are several targets you can take out, but it's important to stick to your objectives. To achieve the hidden objectives, you must move quickly and will not have time to destroy every enemy unit.



This Mavis is your first threat—shoot it down.

Tip

In narrow water passages such as the straits through which you will be sailing, avoid using the binoculars too much or you may collide with other ships or with land. Use the binoculars for short intervals or set a course through the area and let the ship's crew navigate while you concentrate on engaging enemy targets.

Set a course that takes you north through the western strait. A fortress on the island to your starboard fires on you. Target it so your artillery fires when it is within range.

Switch to the AA guns and engage an H6K5 Mavis ahead of you. It dives to launch a torpedo. Your ship's crew automatically avoids the torp, so shoot down the aircraft. Additional Mavis recon planes will attack on higher difficulty settings, so be ready for them.

Destroy the Japanese Recon Base



Sink these cargo ships with your artillery.



Use AA guns to sink the Japanese PT boats.

you should get some hits. After you sink the cargo ships, target the LSTs and watch for Japanese PT boats coming at you from the northwest. AA guns work best against these pests, which launch torpedoes at you and fire their 5" gun. Take them out.



Fortresses represent a threat as they fire artillery at your ship. Destroy them if possible, but don't slow down in order to do it.

After you shoot down the planes, finish off the fortress unless your crew has done it for you. Set a course to the east, toward the Japanese recon base, and get ready for surface targets. Two cargo ships head south through the western strait. Target them, then fire your artillery at them. As you clear the island off your starboard side, three LSTs fire their artillery at your destroyer. Switch to the torpedoes and fire a couple spreads at the LSTs. They are stationary, so



Note

Your ship takes damage during this mission. When a Damage icon appears on your screen, open the Damage screen and assign crew to repair the damage before it causes additional problems. Preventing floods and fires is your top priority.

A couple of fortresses fire on you from the south as you pass by the LSTs. If there are no other threats around, target the LSTs and use artillery to attack. However, set a course through the narrow passage so you sail past the recon base, then northwest toward the PT boat base. Another fortress is east of the recon base, but concentrate your fire on the recon base until the fortress is in range of your artillery. Take out the recon base before you move away from it.

North of the recon base are three cargo ships that you must sink to complete the second hidden objective. Use artillery or torpedoes to sink them as you sail past, heading north. During this time, check the tactical map for PT boats coming at you. Switch to AA guns and engage them while your crew mans the artillery and fires at your previously set targets. Recon planes will also fly in to attack occasionally from the southwest. However, your crew will give you a verbal warning about approaching aircraft. Shoot them down before they get in close.



The recon base is a secondary objective. Destroy it.



These cargo ships are sitting ducks. Decrease speed to half. Use torpedoes—you can't miss at this range. Aim for the ship's center.



Tip

If you don't destroy the recon base by the time your ship begins turning north, slow down to half speed and hit it. You have time to slow down, but not to come back around.

Destroy the PT Boat Base



Sink the subs and destroy the fortress overlooking them.

With the recon base in flames and the cargo ships all sunk, you now sail past a submarine base on your way to another objective—the PT boat base. The subs are not objectives, so don't slow down to take them out. Hit them with long-range artillery fire after you sink the cargo ship trio. A fortress is on the hill above the submarine base; engage it because you must sail right under its guns. Watch for PT boats that will be out in force.

The PT boat base is at the end of a narrow inlet. Avoid sailing into the inlet, as you will have to back out, which takes too much time. Therefore, set a course to this inlet's south, then turn so you sail north past the inlet's opening. Target the base and stop the destroyer at the inlet after making sure there are no PT boats around. From this position, you can fire broadsides at the PT boat base and destroy it—completing another secondary objective.



Sail past the inlet and stop so your guns can fire on the PT boat base.

Sink the Destroyer



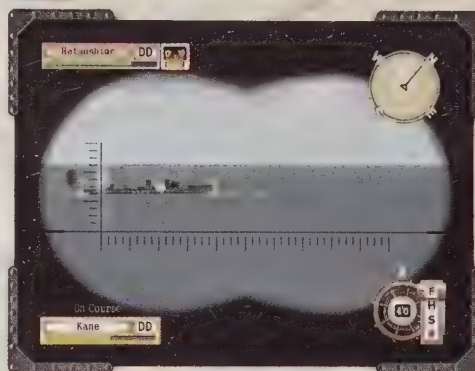
One more fortress to take out as you exit the passage.

When you destroy the PT boat base, set a course for the rendezvous point at full speed ahead. As you exit the Palawan Passage through the northwestern channel, target a fortress to the port side so you have one less enemy firing at you. While you have

completed the objective of getting through the passage, you now have to sink a Japanese destroyer to the north of your position.



You are at an initial disadvantage against the destroyer because it is damage-free but you are not because of your run through the passage. Therefore, take control of your artillery—don't rely on your crew for this vital assignment. They will get a few hits, but you must get many hits or your destroyer will be the one headed for the bottom of the Pacific. Lead the target and watch for the splashes.



Aim ahead of the destroyer to lead it with your shots.

Set a course to the northeast so you can close on the enemy and still fire your guns. When the destroyer is in range, fire. You must lead the target to hit it. Eventually the destroyer, too, turns northwest to fire its guns.

Keep your throttle at full and aim your crosshairs about a half-length of the ship in front of the destroyer so your shells fall right on the ship as it is moving. It takes time to get the range, so watch the splashes and adjust your aim accordingly.

When you are within about 0.6 nm of the target, launch your torpedoes at a position ahead of the destroyer. They won't hit, but it may force the destroyer to slow down or turn to avoid them and give you an advantage in the gunnery duel. Assign crew to repair damage to your ship. After you sink the destroyer, you complete the mission.



You will need to learn the art of firing artillery against a moving target to win this mission and sink the Japanese destroyer.

Vengeance at Luzon

Background

20 January 1942

As Henry rests in Java after his exertions, his friend Major Donald Locklear, now executive officer of a fighter squadron onboard the carrier USS *Lexington*, is heading back into trouble.

A crippled Japanese battleship is harbored near the Philippines island of Luzon, and a daring strike has been planned to sink her.

First, B-17 bombers will attempt to neutralize the Japanese airfield, providing an opportunity for *Lexington*'s strike planes to attack the battleship at anchor and send her to the bottom.

Donald's role is to provide fighter escort to the attack, and his experience in fighting the Japanese Zero pilots will be essential to the mission's success.

Tactical Map



Objectives

Primary Objectives

- Donald must survive
- Defend the B-17 bomber squadron
- Sink the anchored Japanese battleship in the harbor
- Destroy the attacking Japanese battleship
- Retreat to the navigation point with your squadron
- The USS *Lexington* must not sink

Secondary Objectives

- Destroy the Japanese oil tanker

Hidden Objectives

- Eliminate all destroyers

Order of Battle

Class	Type	Number
Plane	F4F Wildcat (Donald)	1
CV	Lexington Class	1
Plane	F4F Wildcat	20
Plane	SBD Dauntless	20
Plane	TBF Avenger	20



Note

Before playing this mission, try the following Naval Academy training missions:

- Previously suggested training missions
- Carrier Ops
- Aerial Ordnance
- Commanding Squadrons

Mission Walkthrough

Escort Duty

This mission puts you in command of various types of planes. At the start, you are Donald in an F4F Wildcat. Since he is considered an elite unit, his plane has improved armor, guns, and handling. Your first task is to defend the B-17s during their bombing run on the airfield. The Japanese have launched two squadrons of Zeros, with five planes in each squadron. Therefore, you and the rest of the Wildcats must speed ahead to try to intercept them before they can engage your bombers. Select the enemy fighters as your target either from the tactical map or by pressing the Target button until they appear in your target window.

Since you are approaching the Zeros head-on, aim straight at the center of the white target brackets and open fire when in range. As they fly by, cut your throttle to half and pull a quick turn to go after them.

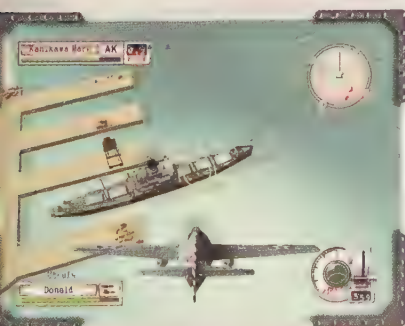
The B-17s are well armed and will shoot down some of the Zeros for you. However, stay on them until you shoot them all down. After you shoot down one of the squadrons, watch for more to take off from the airfield. The airfield can keep sending up fighters until the bombers have made their bombing run and destroyed it.



Make sure these bombers reach the airfield and destroy it.



Get on their tails and shoot down those Zeros before they can get your bombers.



Strafe the tanker to set it ablaze.

A Japanese tanker is docked near the airfield. Since you fly over it while escorting the bombers, dive down and strafe it. It is full of flammables, so it won't take many hits to set it ablaze. Its destruction completes the secondary objective.

Sink the Anchored Battleship

Once you've neutralized the airfield, you now take command of a squadron of SBD Dauntless dive-bombers. Your job is to sink the Tone-class battleship anchored in the harbor. Dive-bombing is a very accurate way of bombing a target. Your plane should already be lined up with the target.



Try to dive as vertically as possible to increase accuracy.

Hold down the Bomb Mode button to see your bombing crosshairs and make sure the battleship is your target. Keep flying toward your target until the crosshairs pass over the battleship—but don't drop the bomb yet. Now put your plane into a steep dive so that the crosshairs are directly over a part of the ship. Dive down and wait until the altimeter is in the red before pressing the Fire button. Hold it down to watch the bomb fall to the target and see if you got a hit.

Strafe some of the cargo ships for practice and extra points.



Come in low and slow to drop your torpedo, which causes a lot of damage to the battleship.

The dive-bombers won't sink the battleship—they just cause some damage. However, use your Dauntless squadron and Donald's Wildcat to strafe all the cargo ships in the harbor if you want to score some extra points (this is not an objective). Leave the destroyers alone since you can't hurt them with just machine guns.

When you are ready to continue, send your squadron to the nav point. You will then be given command of a squadron of Avengers to drop torpedoes and finish off the Japanese battleship. As you approach the battleship, dive down until you are just above the water. Reduce throttle to about half and hold down the Bomb Mode button to arm your torpedo. The battleship is not moving, so aim directly for it and hold down the Fire button at about 0.2 nm to watch the torpedo drop, then swim to hit the battleship. This sinks the big warship.

Defend the "Lady Lex"



The Japanese battleship group is due north of the *Lexington*.

A Japanese surface group has been detected to the *Lexington's* north. It consists of two destroyers and a Fuso-class battleship with an escort of Zeros for fighter cover. It is headed toward your carrier group and will attack when it is within range.

Your job is to sink this second battleship. However, to complete the hidden objective, you must first demolish the four Japanese destroyers. Two are escorting the battleship while the other two are back at the port. To accomplish this mission, you have been given command of the *Lexington's* squadrons. You have fighters, dive-bombers, and torpedo bombers.



Get some planes in the air.

The first thing you must do is launch some fighters. Put two squadrons of Wildcats in the air, with four planes each. Then send two squadrons of Dauntless dive-bombers, with two planes each, to sink the destroyers at the port. Don't

even try to send bombers to attack the battleship group until the Zeros have been shot down. After giving launch orders to all your squadrons, take control of the lead fighter squadron and engage the Zeros. Your two squadrons should be able to take out both the enemy squadrons; however, if they get shot down, launch two more squadrons of Wildcats to finish them off.



You can load your fighters with bombs for dive-bombing the destroyers. Usually one or two hits with these bombs will sink a destroyer. However, if they have to dogfight against the Zeros, don't load them up with bombs—you want to keep your fighters light enough to maneuver well. Otherwise, they'll probably get shot down.

Once the Zeroes are all down, launch your attacks against the battleship group. You can land your fighters and change these squadrons to other types of planes. Send Dauntless dive-bombers (in squadrons of three planes) after the destroyers

escorting the battleship. When the dive-bombers return from attacking the enemy ships at the port, swap them out for two squadrons of Avenger torpedo bombers with three planes to a squadron. Their target is the battleship. Dive-bombers may be able to damage the turrets and other weapons on the battleship, but these can be repaired. It takes torpedoes to sink these big ships.

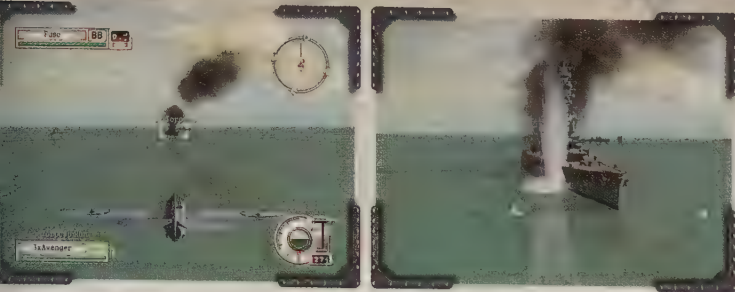


Shoot down the enemy combat air patrol to clear the way for your bombers.



Dive-bomb the destroyers. It takes only a couple good hits to sink them.

U.S. Campaign



If you approach the battleship from the front during your torpedo run, aim toward the ship's front to give yourself a better chance of a hit. The closer you drop, the less time the enemy has to avoid your torp.

Be sure to sink all the destroyers before you take down the battleship. If you miss the destroyers, send the Avengers to finish off the destroyers, then use these torpedo bombers for all your squadrons until the battleship has been sunk. You have some time, but not a lot.

The *Lexington*, which you do not control, will sail east toward the island, then turn around and head west—right toward the battleship. If the battleship comes into range, it will start firing on the *Lexington* and sink it rather quickly. Make sure this doesn't happen by sinking the battleship and completing the mission.



Your Avengers are the only weapons you have that are capable of sinking a battleship. Therefore, guard them carefully and don't put them in the air until you have shot down all the enemy fighters. At Veteran difficulty level, you may want to send three or even four squadrons of fighters against the Zeros just to make sure you destroy them quickly—before they can take out your bombers.

Raid on Balikpapan

Background

24 January 1942

As the *Lexington* retreats after its success, Henry has received new orders—and new responsibility. A Japanese transport convoy has been located at Balikpapan in Borneo, and Henry has been ordered to attack it.

Now in command of a modern Fletcher-class destroyer and accompanied by the USS *Parrott*, Henry leads his division toward the target knowing that he will have only a short amount of time to wreak destruction among the Japanese cargo ships before enemy reinforcements arrive on the scene.

Tactical Map



Objectives

Primary Objectives

Destroy all Japanese cargo ships

The USS *John D. Ford* must survive

Eliminate the enemy reinforcements (only required if you do not sink all cargo ships within 10 minutes)

Secondary Objectives

Destroy the Japanese fortress

Destroy the PT boat hangar

Hidden Objectives

Finish the mission before reinforcements arrive (you have 10 minutes)

Both of your destroyers must survive

Order of Battle

Class	Type	Number
DD	Fletcher-class destroyer	1
DD	Clemson-class destroyer	1



Note

Before playing this mission, try the following Naval Academy training missions:

- Previously suggested training missions
- Fleet Formations
- Taking Command of a Fleet

Mission Walkthrough

The Approach

As you continue to move up in rank, you have been given more responsibility—and more fire-power. The Fletcher-class destroyer is state-of-the-art and a lot more powerful than the Clemson you previously commanded. However, your group also has a Clemson-class destroyer. It follows your destroyer in formation and attacks the same targets you select. While you could give it different orders, just let it follow and attack on its own for this mission.



Head toward Balikpapan to sink a convoy of cargo ships at port.



Fire torpedoes at the stationary cargo ships from long range. Be sure to wait until the "in range" indicator illuminates.

ports are docked and stationary, making them perfect targets for long-range torpedo shots.

Your ships begin to the north of the Balikpapan. Set a course toward the easternmost cargo ship near the main island's northeast tip. You want to be able to bring most of your guns to bear on the enemy defenders. While you are too far away to attack with artillery, the trans-

Use the binoculars to locate the northernmost cargo ship docked outside the port area. Once the "in range" light comes on for torpedoes, fire a couple at the ship. Although the torps take a while to reach the target, they will hit and sink it. Fire torpedoes at the easternmost cargo ship as well.



Engage the enemy destroyer if it comes at you. With two of your destroyers firing on this ship, it sinks in no time once you get your aim corrected for range.

A Minekaze-class destroyer is patrolling the area. It is no match for your Fletcher-class destroyer, so engage it at long range. Select it as your target so your following destroyer will also fire on it. Lead the target and watch for splashes. If it moves away and out of range, don't worry about it. The destroyers are not objectives, just threats.

PT boats and their torpedoes offer another threat to your ships. Don't get caught up with the destroyer and let one of these get in close. Use AA guns to sink them. Since the Fletcher class has some powerful AA weapons, you will sink these targets quickly.



PT boats can be a big threat with their torpedoes. Don't let them in close or you face serious damage if one or two of their torpedoes hit you.



Tip

If you want to get both hidden objectives, you must move quickly. Focus on your objectives. Don't waste a lot of time on the destroyers. Also be sure to launch as many torpedoes at long range as possible. Therefore, by the time you make your run against the cargo ships, at least a couple will already be sunk.

Sinking the Cargo Ships

The best tactic for going after the cargo ships is to sail right through the channel that runs from the northeast to the southwest. As you approach the channel, prepare to make a starboard turn or set a course on the tactical map so your crew will navigate it for you.

As you near the island, you come under fire from the fortress. This fortress can damage your ships, so begin firing at it with your artillery as soon as it comes into range—about 0.8 nm. After you destroy the fortress, slow down to half speed ahead and attack the PT boat hangar located below the fortress.



Once in range, turn so you can attack the fortress with all your guns. The sooner it is destroyed, the less damage you will take from its guns.



It is easy to miss the PT boat hangar as you sail past and fire at the fortress. Slow down and target it—stop if necessary—or give your Clemson-class destroyer a direct order to attack it while you move ahead to deal with the cargo ships.

Note

As you approach the main island, another Japanese destroyer comes around the island's northern tip from the eastern side. However, you can usually ignore it if you are already in the channel and sinking the cargo ships.



It is hard to miss a stationary target at point-blank range. Slow down so you don't sail past them so quickly.



Fire torpedoes at these targets to hasten their demise.

With these two secondary objectives taken care of, all that remain are the cargo ships. There are seven total, and your long-range torpedo shots already took out two. As you sail down the channel, you will have cargo ships off both sides at staggered intervals.

Your torpedoes should have reloaded by now, so fire them all at cargo ships. Finish off the rest of the cargo ships with your artillery. Your Clemson-class destroyer will also fire on whatever ship you have targeted, so you can pass some by, leaving them targeted, and fire on others ahead. If you have moved quickly and sunk all seven cargo ships within 10 minutes, you complete the mission.

Reinforcements Arrive

If you don't sink all the cargo ships within 10 minutes, you encounter enemy reinforcements. You fail a hidden objective, and you get a new primary objective that you must complete in order to finish the mission—destroy the reinforcements. The Japanese have sent another destroyer and a Kuma-class light cruiser. While the cruiser has more and larger main guns than your Fletcher, it is old and you should not have too much trouble taking it on.

If you are near the cargo ships when the reinforcements arrive, finish them off. Then move out to engage the enemy warships. Fire a spread of torpedoes toward the cruiser. Even if they don't hit, they may force the cruiser to slow down or turn, possibly giving you an easier shot. Since the destroyer usually closes on you first, target it and sink it before it can get in too close and cause damage. Remember to target the enemy ship to ensure that your Clemson class fires at it.



After you sink the destroyer, you can concentrate both your destroyers' fire on the Japanese light cruiser *Naka*.



Tip

Watch your Clemson-class destroyer. If it starts taking a lot of damage, detach it from the group and send it away from the battle at full speed so it does not get sunk. Also, be sure to repair any damage as soon as your ships receive it—especially when fighting against a cruiser.



After you sink the destroyer, focus on the cruiser. You have a speed advantage, so keep your throttle set at full ahead and always keep the enemy cruiser off to one side so that all five of your 5" guns can fire on it. This requires you to turn slightly toward the target since you will be doing 40 knots compared to the cruiser's 30 knots. With two destroyers taking on a single cruiser, you have the advantage, and once you score enough hits, the cruiser sinks.

Holding the Lombok Strait

Background

20 February 1942

Singapore has fallen to the relentless onslaught of Japanese aggression, and now the battle is moving to Indonesia and Australia. Admiral Hart's flagship, the USS *Houston*, has been drafted into the American-British-Dutch-Australian Command (ABDACOM) fleet, a joint effort by the Dutch, Australian, British, and American forces to muster enough sea power to challenge the Imperial fleet's might.

As Hart prepares himself for battle, Henry is given an important task—to take charge of the defense of Den Pasar airfield on Bali, a vital link in the Allied defensive line. As memories of the desperate battle in the Philippines crowd his mind, Henry marshals the various forces at his disposal, knowing that one mistake in his planning is all it will take to cede another victory to the enemy.

Tactical Map



Objectives

Primary Objectives

- Protect the airfield
- USS *John D Ford* must survive
- Prevent the invasion force from capturing the island

Secondary Objectives

- Shoot down the Japanese medium bombers
- Launch a preemptive strike at the enemy invasion force

Hidden Objectives

- 50 percent of your air forces must survive
- Sink the landing support ship
- Don't allow the enemy to capture any of the bunkers

Order of Battle

Class	Type	Number
DD	Fletcher-class destroyer	1
Ground	Airfield	1
Plane	P-40 Warhawk fighter	30
Plane	SBD Dauntless dive-bomber	20
Plane	TBF Avenger torpedo bomber	20
Plane	B-25 Mitchell medium bomber	2
Ground	Shipyard	1
Plane	PBY Catalina recon	2
PT	Elco PT Boat	2

Note

Before playing this mission, try the following Naval Academy training missions:

- Previously suggested training missions

Mission Walkthrough

Defend the Airbase



You must defend the island of Bali from enemy invasion.



Get your fighters in the air. If the airbase is destroyed, you will never repel the invasion fleet.

Your first objective is to protect your airbase from enemy bombers. Therefore, when the mission begins, launch all four squadrons with three P-40 Warhawks each and send them to the southwest to intercept the first wave of enemy bombers. Also launch a PT boat and Catalina from your shipyard and send them to the southwest to patrol for an invasion fleet.



Shoot down the bombers while some of your other squadrons deal with the Zeroes.



The Val dive-bombers are faster than the Nells, so shoot them down before they drop their ordnance on the airbase.

The first wave of enemy aircraft consists of Nell medium bombers with a squadron of Zeroes as escort. Order two squadrons to go after the bombers and the other two to deal with the Zeroes. Take control of your fighters to shoot down the bombers before they get close to your airbase.

After you shoot down the first wave, you must deal with three more waves. Order your planes to meet the enemy squadrons near where they enter the map

so you have plenty of time to shoot them down. If one of your squadrons is destroyed, launch another squadron of fighters from your airbase. The second wave consists of more Nells and Zeroes; the last two waves are Val dive-bombers with Zeroes. However, this last wave is escorted by five Zeroes, so be sure you have enough Wildcats to deal with them all.



After you get to the last wave of enemy planes, don't replace lost squadrons with new fighter squadrons unless necessary. Instead, get Devastator torpedo bombers in the air to deal with the incoming invasion fleet.

Sink the Invasion Fleet

When you shoot down the last enemy airplane, you detect a Japanese invasion fleet headed in from the east. It is led by a Kuma-class cruiser, the *Nagara*, with three destroyers. While your objective targets are the two SB landing boats, the two troop transports, and the fleet oil tanker, you must sink that cruiser first. When your squadrons land, change them to Devastator torpedo bombers and send them after the *Nagara*. Manually take control of the torpedo runs; this ensures a greater number of hits than if you rely on the air crews to do it. Also send in your PT boat to make a run against the cruiser.



The Devastators' torpedoes are your best way to sink the cruiser. It takes several hits, so keep them coming.



The torpedoes on the PT boats are also effective against the cruiser, although torpedo runs against it are suicidal unless it has been softened up a bit. Use the PT boat for the coup de grace—the final attack necessary to sink the cruiser.

Note

One of your primary objectives is to protect your Fletcher-class destroyer. Therefore, leave it at the port until your planes whittle down the enemy fleet. Going against four warships will get it sunk.

After you sink the cruiser, send out Dauntless dive-bomber squadrons to sink the troop transports and prevent them from launching landing craft for the invasion. After dropping the bombs, strafe the fleet oiler to ignite its flammable cargo.

If some of your Devastators did not drop their torpedoes, send them after the transports as well. Launch a squadron of B-25D medium bombers. They work great against the transports that serve as landing support ships, which are a hidden objective. Take control and approach from the front. This way, as you drop a line of bombs, they will fall right along the ship's length for more hits than if you dropped from the side.

After your air force has sunk most of the warships, your Fletcher-class destroyer can come out to attack. The SB landing ships are armed and can damage your destroyer.



Dive-bomb the destroyers. It takes only a couple of hits to sink them.



By sinking the transports early, you make your job easier. The SB landing ships are tough for your dive-bombers to hit, so send these planes after the destroyers. After you sink a couple of them, send your Fletcher-class destroyer, the *John D. Ford*, in after the landing ships. Fire the destroyer's artillery and torpedoes to engage the enemy. Use a PT boat and the Catalina, which can drop torpedoes, to sink the landing ships and complete the mission.



PT boats are great for sinking the landing ships.

If the Japanese launch their landing craft, destroy them with the AA guns on your destroyer or your PT boat. Planes can also strafe them with their machine guns.



Rendezvous in the Java Sea

Background

24 March 1942

The sweetness of Henry's victory is soon soured by the news that the ABDACOM fleet has suffered a crushing defeat at the Battle of the Java Sea, with many ships lost and scarcely any survivors. Hart was lucky to escape, but as the *Houston* limps back into port, it is clear that Hart's time in Indonesia has come to an end. Java has fallen, and once again Henry is forced to gather his forces and retreat.

With the *Houston* now as his flagship, Henry makes a daring bid to link up with the remains of the British Eastern Fleet. The Java Sea is now Japanese territory, however, and he knows that he will be harried every step of the way.

Tactical Map



Objectives

Primary Objectives

Meet with the Royal Navy forces at the given coordinates ASAP

The *Houston* must not sink

Sink the battleship

Secondary Objectives

HMS *Exeter* must survive

Destroy the enemy submarine

Hidden Objectives

Destroy all enemy ships

Order of Battle

Class	Type	Number
CA	Northampton-class cruiser	1
CA	York-class cruiser	1
DD	Clemson-class destroyer	3
DD	Fletcher-class destroyer	1
SS	Narwhal-class submarine	1

Note

Before playing this mission, try the following Naval Academy training missions:

- Previously suggested training missions
- Silent Hunting

Mission Walkthrough

Enemy Planes Inbound!

For this mission, you have been given command of the USS *Houston*, a Northampton-class cruiser. Attached to your group are a couple of destroyers. In order to succeed, you must be able to break off the destroyers at certain times so they can go after other targets. However, for now you have to deal with inbound Japanese aircraft.



The mission begins with an attack by Japanese bombers.



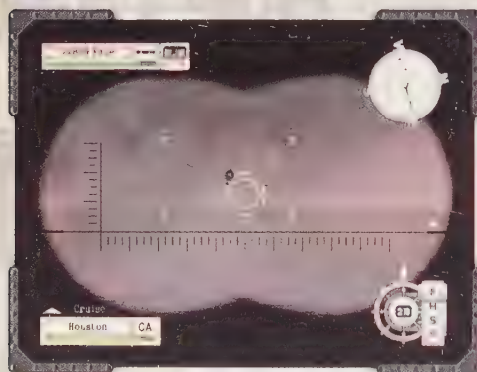
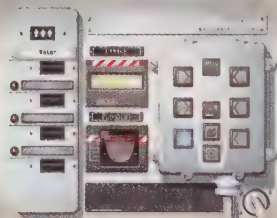
Turn to engage the enemy bombers with a broadside of AA gunfire.

Use your binoculars to get a closer view and start firing as soon as they come into range. As the bombers approach, switch to Normal view so you can get a wider view and turn to aim more quickly as they fly past. Press the Target button to select the closest targets, then cycle through other squadrons of enemy bombers. Look in the target window to see if the squadron has dropped its ordnance yet. If so, switch to the next target. Before going after planes that are flying away, shoot down the planes that have not yet attacked.



Tip

While under air attack, cycle through your ships to see if they're taking damage. If they are, quickly open the Repair screen and assign crew to the problems. Flooding and fires are your main priority. You have to really watch your destroyers, as it does not take much to sink them.



The torpedo bombers can cause a lot of damage if they hit your ships. Shoot them down before they can drop their torpedoes.

your closest destroyer to the sub and order it to attack.

The first waves are Val dive-bombers that approach from the north. Go to the tactical map to get a view of the enemy and set an eastern course for your group. This allows you to fire the maximum number of AA guns at the incoming enemy.

It takes some time for the destroyer to get there, so switch back to the *Houston* and shoot down the torpedo bombers. They have to come in low in order to drop their bombs, so use both Binocular mode and Normal view to engage them. Once a bomber drops its torp, change targets. Your ships should automatically avoid any torpedoes that are in the water, but still watch for hits and order crews to patch those holes and pump out the water before one of your ships is sunk.

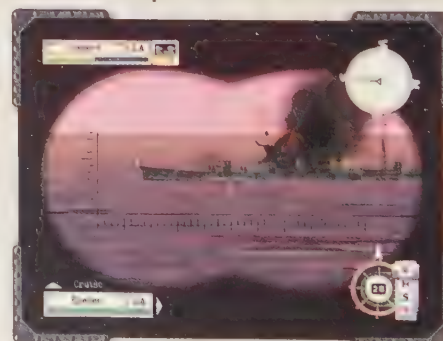


Sail directly toward the sub with your destroyer and drop depth charges right over its position.

After you shoot down the torpedo bombers (or they fly away), switch to your destroyer on the antisubmarine mission. The sub's location is indicated by a white targeting bracket; head straight toward it at full speed. When you're within 0.4 nm, drop a depth charge to switch to an underwater view. Before long, you see the Japanese sub. Steer your destroyer right over it, and hold down the Fire button to continue dropping depth charges. Even getting close causes some damage. The goal is to turn so your destroyer is right above the enemy sub. You may have to slow down a bit to prevent racing ahead. Turn to follow the sub's movements and keep dropping depth charges until it sinks.

Rendezvous with the *Exeter*

After sinking the sub, you come in contact with the HMS *Exeter* to the north, a British cruiser with a couple of destroyer escorts. In addition, a Japanese surface group consisting of a cruiser and two destroyers is coming at you from the west. Order the destroyer you detached from the *Houston* to rejoin the group, then order the *Houston* to attack the closest destroyer while you are on the tactical map. Switch to the *Exeter*.



The *Exeter's* group can sink the *Haguro*, the Japanese cruiser.

U.S. Campaign

Since the British cruiser is closer to the Japanese cruiser, target it. Your destroyers in this group will also be. Steer your ship so the enemy cruiser is to your bow's starboard side as you close. Once in range, open up with your artillery. If neces-

sary, turn the ship so you can get all of your guns firing on the target. You can launch torpedoes from the *Exeter* as well, but your gunnery skills will be the main factor in bringing down the enemy cruiser. You must sink it quickly before it can damage your ships.

The *Houston* can take care of itself. Once you sink the cruiser, stay in command of the *Exeter* and begin attacking any remaining enemy destroyers. As before, check your ships for damage and repair as needed. Hurry and finish off the destroyers; after the cruiser goes down, another enemy surface group approaches from the east-northeast.

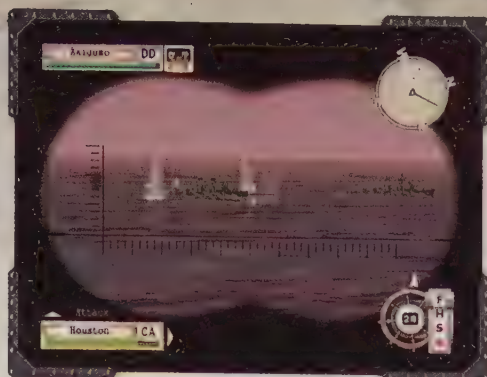
Sink the Battleship



You now have command of the **USS Nautilus**.

ships. The mission ends when the battleship goes down, so sink the destroyers first.

Your cruisers must be protected; they are no match for the battleship. It will take torpedoes to sink it. Therefore, detach all your destroyers and order them to attack the enemy destroyers. Keep the *Nautilus* at depth level 3 for a bit since you don't want the enemy destroyers to sink it. Meanwhile, send the *Exeter* and *Houston* away from the battle, toward the west.



Meanwhile, the *Houston's* group takes care of the destroyers *Amagiri* and *Akigumo*.



Note

You can use your cruisers to help sink the enemy destroyers with long-range artillery fire. However, if the battleship starts firing on them, send them away. The battleship is slower than your cruisers, and if it must chase them, it can fire only with its forward turrets, giving your cruisers a chance to get away.



Detach your destroyers and send them after the enemy destroyers. Take control of them as they get close to their targets so you can fire the artillery and get more hits than the crew would.

Take direct control of the destroyers as they close with the enemy, firing your artillery to sink the enemy ships. Also launch a spread of torpedoes at the battleship if you come into range. Even if you don't get a hit, it forces the battleship to alter course to avoid your torpedoes, making it harder for it to attack your cruisers.

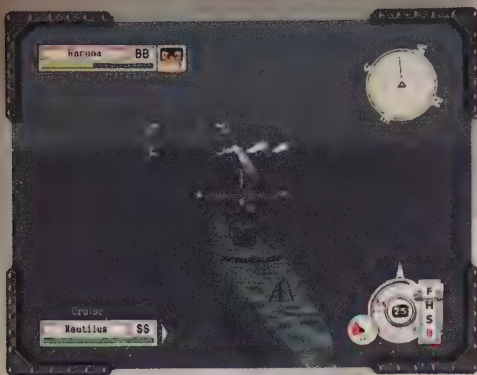
Your destroyers are expendable for this mission, but be sure to repair them as needed to keep them in the battle. They must sink the enemy destroyers in order to clear a path for the *Nautilus*. Plus, if they are still alive after you sink the Japanese destroyers, they can make torpedo runs against the battleship.



Your submarine can move in to attack the battleship after you sink the destroyers.

up to depth level 2, periscope depth. The battleship can't touch your sub while it is submerged, so you can operate safely as long as you have air.

The *Nautilus* is your main weapon for taking down the battleship. If necessary, order it to sail away from the enemy so the destroyers can't get it. When the area is clear of Japanese destroyers, the *Nautilus* can attack. Bring her



After firing, move into another firing position while your torpedoes reload.

Get within about 0.3 nm before firing your torpedoes. It is best to attack from the front so the enemy does not have much time to react; however, you can also come in from the side—just be sure to lead the target. Fire your torpedoes in a spread to ensure a hit. In addition to the four forward torpedo tubes, you also have two aft tubes. Turn and fire from these tubes while the forward tubes are reloading. Only use the periscope to line up your shots, lowering it so the battleship will not know where you are. Once you get in close, you can see the bottom of the battleship in your underwater view. You can even fire torpedoes from this view without raising the periscope. It takes at least four torpedo hits to sink the battleship: your sub has plenty of torpedoes to do the job. Once the battleship sinks, the mission is complete.

Strike on Tulagi

Background

3 May 1942

As Henry's ragtag battle group sails for the safety of Australia, it is clear the powers that be have noticed Henry's prowess. Summoned back to Pearl, he finds himself promoted to captain and with new orders to join Admiral Frank Fletcher as second in command aboard the aircraft carrier *USS Yorktown*.

Impressed with Fletcher's gruff confidence, and all too aware of the aircraft carrier's power in modern naval warfare, Henry is keen to take the battle back to the enemy. He does not have to wait long: the Japanese have overrun the island stronghold of Tulagi in the Solomon Islands, and *Yorktown* is heading out to spearhead the U.S. amphibious assault to take it back.

Tactical Map



Objectives

Primary Objectives

- Destroy the airfield hangars
- Destroy the seaplane hangar
- Make sure at least three landing ships come ashore
- Yorktown* must survive the encounter

Secondary Objectives

- Destroy the fortress protecting the bay
- Destroy the Japanese support to protect the LSTs

Hidden Objectives

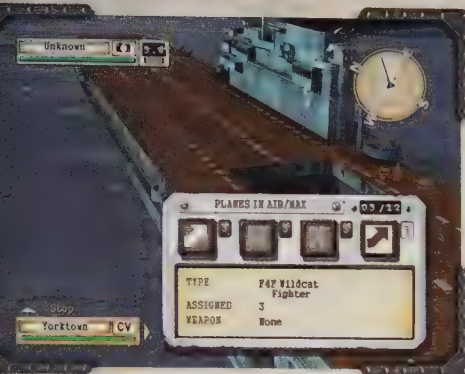
- Sink the Japanese cargo ships

Order of Battle

Class	Type	Number
CV	Yorktown-class aircraft carrier	1
DD	Fletcher-class destroyer	2
Plane	B-17 Flying Fortress bomber	3
Plane	F4F Wildcat fighter	40
Plane	SBD Dauntless dive-bomber	30
Plane	TBF Avenger torpedo-bomber	30

Mission Walkthrough

Defend Your Fleet



Your carrier's air wing is your main weapon for this mission.

The invasion fleet starts heading toward shore. Therefore, you want to complete the secondary and hidden objectives, work on them first before destroying both hangars.



There is a lot of action at this mission's beginning. You have both aircraft and ships headed toward your fleet. Check the tactical map regularly to see what your main threats are. This allows you to order your units to intercept and destroy those threats.

The airfield offers the biggest threat to your fleet since it continues launching planes to attack you. You have been assigned a squadron of B-17s to take out the hangar. While they can probably make it on their own, it's best to give them some

escort. Launch two squadrons of F4F Wildcat fighters, with three fighters in each squadron. Order one squadron to escort the bombers while the other heads toward the airbase to shoot down incoming Japanese bombers.

An enemy cruiser, the *Tama*, is also headed toward your fleet. Launch a couple squadrons of Avenger torpedo bombers to attack and sink it before it comes within firing range of your carrier group. While your squadron is getting airborne, order the *Yorktown* to sail east. This helps put it at a distance from enemy warships headed from the island.



The squadron of B-17s is for taking out the enemy airfield hangar.

Take control of the torpedo bombers as they begin their runs. Maneuver so your plane approaches from the side, and drop your torpedo in close to the cruiser to ensure a hit. If the first squadron does not sink the cruiser, send in the second to finish the job. Once their ordnance has been dropped, send your bombers back to the carrier.



The cruiser is your first priority. Sink it with torpedoes.

Attack the Airfield and the Destroyers



Shoot down the enemy bombers headed toward your carrier.



Drop the B-17's bombs when the crosshairs are in the middle of the target bracket.

Take control of the fighters and shoot down the enemy bombers headed toward your carrier. Your fighters are your main defense, so engage them as far away from the carrier as possible. Check the tactical map frequently and switch to the B-17s when they approach the island.

The sooner you can destroy the airfield hangar, the sooner the Japanese lose the ability to launch more aircraft. Therefore, line up your bomb sight and drop when the crosshairs are over the hangar. With three B-17s dropping bombs, you should easily take out this target.

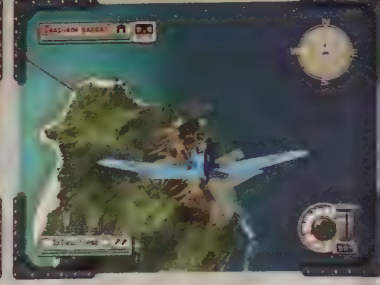
After the bombing run, the bombers fly off-map and don't return. Order your fighters to shoot down any remaining enemy aircraft. Once they complete this, send one to attack any PT boats or recon planes launched from the seaplane base while the other strafes and sinks the four cargo ships around the island to achieve the hidden objective.



Use your fighters to strafe and sink enemy PT boats and the cargo ships.

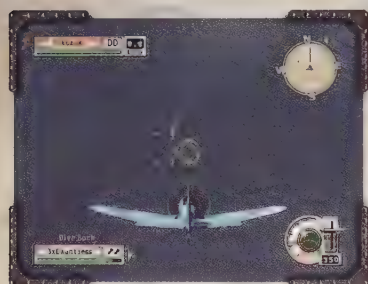


It takes several hits to destroy the fortress on the island. Take it out or it fires on the landing ships during the invasion.



The seaplane hangar is the last target to bomb before the invasion.

As soon as your torpedo bombers land, send up squadrons of Dauntless dive-bombers. Two destroyers are headed from the island to attack your ships. Assign one squadron to each. If you don't think your bombers will make it in time, detach your two destroyers and send them to attack the Japanese destroyers. Whether you use planes or ships, you must sink those enemy destroyers.



Dive-bombers are best for sinking destroyers. It takes only a few hits.

However, you can also use your own destroyers to sink those of the enemy before they reach your carrier.

Prepare for the Invasion

After you've destroyed all enemy warships and the airfield hangar, the only threats to your fleet are PT boats and recon planes from the seaplane hangar. Order one squadron of fighters to patrol south of the base and neutralize any enemy units that emerge. Meanwhile, get three squadrons of dive-bombers in the air. There is a fortress on the main island that fires on your landing ships as they approach for the invasion. Send a couple dive-bomber squadrons to take it out. The third squadron should go for the seaplane hangar.



Note

Timing is important for this mission. Don't completely destroy the seaplane hangar until you're ready for the invasion. It's wise to have a dive-bomber squadron and a squadron of torpedo bombers launched and on station south of the island before completely destroying the hangar.

Take command of the dive-bombers as they go in for the attack. Ensure the fortress is destroyed before beginning the attacks on the seaplane hangar, which usually takes two squadrons to destroy. After your planes have dropped their bombs, send all three squadrons back to the carrier to land. Your fighter squadron should stay on patrol south of the hangar.

Protect the Invasion Fleet

As the squadrons return to the carrier, launch two dive-bomber squadrons and one torpedo-bomber squadron. Order one dive-bomber squadron to finish off the seaplane hangar, and send the other two bomber squadrons to position themselves south of the island to prepare for the invasion. Take command of the attack on the seaplane hangar and eliminate it. You can then send this dive-bomber squadron and your fighters back to the carrier.



There are six LSTs in the invasion fleet. At least three must survive to complete the mission.



Your torpedo bombers and dive-bombers must sink the cruiser and destroyer before they can sink your LSTs.

As soon as you destroy the seaplane base, your invasion fleet of six LSTs begins its run toward shore. However, the Japanese have sent a cruiser and destroyer to attack these ships. Fortunately, you already have two bomber squadrons ready to fight this new threat. Order the torpedo bombers to attack the cruiser while the dive-bombers go after the destroyer. To ensure hits, take command of the torpedo bombers. If they fail, launch more bomber squadrons when the two squadrons from the attack on the seaplane base return to the carrier. You should be able to sink both ships before they threaten the LSTs. After you sink them, the mission is complete.

Battle of the Coral Sea

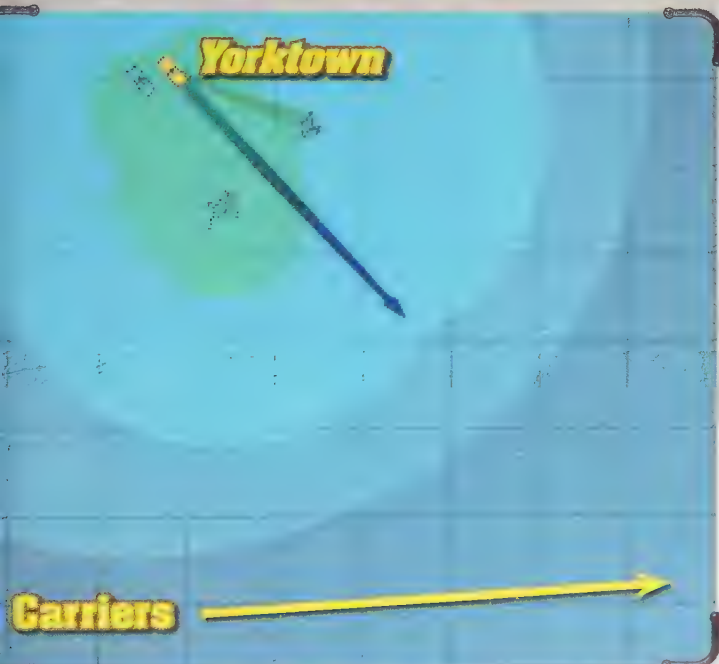
Background

8 May 1942

With Tulagi secured, *Yorktown* is given new orders—to confront a Japanese invasion fleet heading for Port Moresby in New Guinea. *Yorktown* is joined by the USS *Lexington*, and Henry is surprised and delighted to discover that his old friend Donald is aboard.

As the two friends renew their acquaintance for the first time since that fateful morning in Pearl Harbor, they prepare for the greatest challenge the U.S. Navy has yet faced—to meet the seemingly invincible Japanese Carrier Strike Force head-on in what will be the first aircraft carrier battle in history.

Tactical Map



Objectives

Primary Objectives

- Defeat the Japanese carriers
- Ensure Donald's survival
- Protect the *Yorktown* from sinking

Hidden Objectives

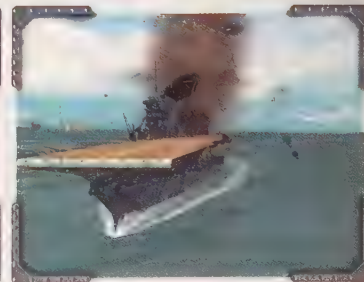
- Shoot down 30 Japanese planes

Order of Battle

Class	Type	Number
CV	Yorktown-class aircraft carrier	1
CL	Cleveland-class light cruiser	1
DD	Fletcher-class destroyer	2
Plane	F4f Wildcat fighter	23
Plane	SBD Dauntless dive-bomber	21
Plane	TBF Avenger torpedo bomber	21
Plane	PBY Catalina recon plane	1

Mission Walkthrough

Combat Air Patrol



Prior to the mission's start, the USS *Lexington* takes critical damage from a Japanese air strike. It sinks later in the mission. As a result, you do not command the "Lady Lex."

This mission can be tough, especially if you want to achieve the hidden objective. You need to locate the enemy carriers and defend your single carrier. You are at a disadvantage since the enemy can put up twice as many planes as you. While your fleet begins in the northwest, the Japanese fleet is in the southwest and headed east. If the carriers exit the eastern map edge, the mission fails, so your time is limited.

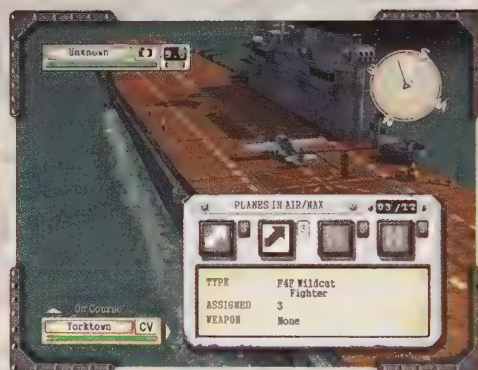


Note

In addition to your four squadrons of aircraft, you also have Donald, a fighter ace, under your command. His Wildcat is an elite unit, so when you help out with the defense, take control of Donald and shoot down those incoming bombers. Just be careful not to let this unit get killed or the mission is over.



Launch a couple of squadrons of fighters for combat air patrol. However, rather than keeping it over your carrier, send it between your fleet and the enemy's so they have some time to intercept and shoot down the incoming bombers.



Your first priority is to get some fighters in the air since Japanese bombers are on their way. Launch two squadrons of Wildcat fighters and order them to fly to a position ahead of your carrier group and in the map's middle. Order Donald to this location as well. Send your PBV Catalina to a position to the east of the fighters to act as your long-range eyes. As enemy bombers are detected, order your fighter squadrons to intercept them. The key is to engage the enemy bombers as far away from your carrier as possible.



Tip

You do not need to know where the enemy carriers are before you launch a strike. The Japanese bombers are flying straight from their fleet toward yours, so just draw an imaginary line connecting the enemy squadrons and extrapolate it back to the Japanese carriers.

You personally have to shoot down 30 enemy planes in order to complete the hidden objective. To do this, send Donald out ahead of the other squadrons to engage enemy squadrons on his own. This prevents other U.S. fighters from stealing some of your kills. In fact, to deal with what gets by you, keep Donald somewhat close to the enemy fleet while your two squadrons of Wildcats are near the middle of the map. This strategy lets you rack up a lot of kills with this elite unit.

A good tactic to use during dogfights is to fly at an angle away from the enemy squadron as you approach so that you can turn into the enemy bombers from the side and get some kills while you move in behind them. You will need to manipulate your throttle to catch up to the bombers but not fly past them. Use your rudder controls for left and right adjustment rather than rolling the plane in those directions since the rudders allow for finer control. Keep a mental tally of how many planes you shoot down. When you get at least 30, concentrate on attacking the carriers.

Carrier Strike



Dive-bombers can come in at high altitude and take advantage of the cloud cover to hide them from AA fire below.



Score more kills by sending Donald ahead of the other fighter squadrons.



Get behind the bombers since they often fly in a straight line to the target, making them easy to shoot down.

After you have launched your fighter squadrons and sent them to their combat air patrol positions, launch two squadrons of Dauntless dive-bombers and order them to fly to the area where the PBV Catalina is patrolling. When both squadrons are together, send them southwest to locate the enemy fleet. Target the nearest carrier and begin dive-bombing it. By coming in high and from the east, you can usually avoid the squadron of Zero fighters and some of the AA guns.



Tip

When attacking a large ship such as a carrier, you want to cause as much damage as possible in a short amount of time. If you cause some damage and there is a lull before the next attack, the ship's crew can repair some of the damage. Therefore, sending waves of single attack squadrons is not as effective as sending two or three squadrons to attack all at once. This tactic also overwhelms the enemy's AA defenses, allowing more of your planes to get through to deliver their ordnance.



Carriers make the easiest targets for dive-bombers since they are so large. In addition, the 1,000-pound bombs can cause a lot of damage and even start fires on the carriers.

Two squadrons of Dauntless dive-bombers will usually not be enough to sink a carrier. However, you can cause some damage. Send your surviving dive-bombers back to the carrier so you can rearm and launch another strike. If your fighter squadrons are having no trouble defending your carrier group, send the one that has taken the most damage back to the carrier, leaving one as your and Donald's backup. Send two or three squadrons of dive-bombers to attack the carrier you have already damaged. Though the carrier may have had some repairs performed, another strike by six to nine dive-bombers will put it out of action.

You do not have to sink both carriers to win this battle; you need to cause a lot of damage to only one of the carriers so that it is forced to withdraw, preventing the Carrier Strike Force from taking part on the invasion of Port Moresby.

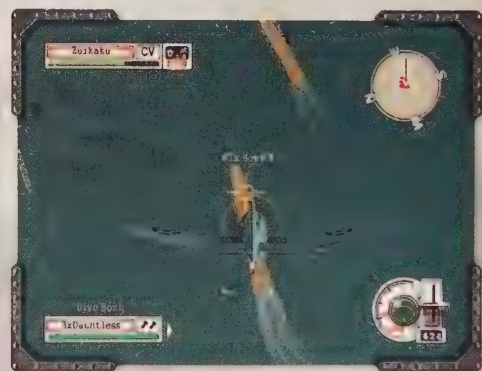
While torpedo bombers can accomplish the same results as the dive-bombers, the Avengers must come in low and slow and tend to take a lot of damage from the AA fire of the carriers' escorts. To avoid most of these defenses, send your torpedo bombers south-east, almost all the way to the southern map edge, and then turn west to locate the carriers and hit them from the south. This allows you to avoid some of the defenses that are mostly to the carriers' north.



Torpedo bombers must fly through a lot of AA fire as they approach the target, making this a tougher way to attack the carriers.

The Quick Battle

If you are not concerned with the hidden objective, then try a daring strategy to sink the enemy carriers as quickly as possible. Use the same general strategy as discussed previously. However, send up only one squadron of Wildcats to help Donald shoot down all the enemy bombers. You still must take control of Donald to ensure most of the bombers don't make it to your fleet.



Try sending in three squadrons of dive-bombers in a large group. The carrier you hit goes to the bottom in no time flat.

By cutting one squadron of fighters, you can send three squadrons of dive-bombers. As before, send them south-east, but to the east of the line of Japanese bombers headed northwest. Rally all of your dive-bombers so they are together, and then order them all to attack the closest carrier. With nine dive-bombers attacking within a span of one to two minutes, the targeted carrier will not stand a chance.



Try sending in a mixed strike force with a combination of dive-bombers and torpedo bombers. Just be sure they are close together so they hit the carrier at the same time. This forces the enemy to divide its AA fire between the high-altitude dive-bombers and the lower-altitude torpedo bombers.

The Tide Begins to Turn

During the Battle of the Coral Sea, the U.S. Navy lost the *Lexington* while the Japanese carrier *Shoho* was sunk and the *Shokaku* damaged. However, this was enough to prevent the Japanese carriers from providing air support for the Japanese invasion force headed to New Guinea.

The *Yorktown* was also damaged and smoking when the last Japanese bombers flew back to their carriers. The pilots reported the *Yorktown* sunk. However, the *Yorktown* was able to get back to Pearl Harbor and receive repairs in order to take part in the Battle of Midway—a participant the Japanese did not expect.

This mission takes place after the *Shoho* and *Lexington* were both out of the battle and the *Yorktown* was trying to disable at least one of the two remaining Japanese carriers.

Turning Point at Midway

Background

31 May 1942

Port Moresby has been saved, but the cost has been terribly high. Donald is dead, the *Lexington* sunk, and the *Yorktown* heavily damaged. There is no time to mourn, however, as U.S. Naval Intelligence has discovered a massive Japanese carrier fleet approaching the island of Midway.

Should Midway fall, the Japanese will have a base from which they can mount an attack on Pearl Harbor, and perhaps even the West Coast. As the two remaining carriers prepare to ambush the Japanese, Henry is entrusted with the command of Midway's dilapidated and outdated defenses, with which he must face the full force of the Imperial Navy.

Tactical Map



Objectives

Primary Objectives

- Repel the air raid
- Locate and destroy the Japanese carriers
- Destroy the transport ships
- The *Yorktown* must survive

Hidden Objectives

- Destroy the transport ships before they launch landing boats

U.S. Campaign

Order of Battle

Class	Type	Number
Base	Airfield	2
Base	Shipyard	1
Plane	F2A Buffalo fighter	30
Plane	TBF Avenger torpedo bomber	20
Plane	B-17 Flying Fortress bomber	12
Plane	PBY Catalina recon plane	6
PT	Elco PT Boat	2

Mission Walkthrough

Air Raid Midway



U.S. Navy recon planes have detected a large number of enemy planes headed for Midway. It's an air raid!

The Japanese Carrier Strike Force has launched an air attack against Midway preparatory to an invasion of the toll. Lots of squadrons of bombers with fighter escorts are headed toward the two U.S. airfields. The Japanese plans called for a surprise attack that would catch the U.S. planes on the ground. However, you know they are on the way, so get all those planes in the air!

You have two airfields and a shipyard. The first airfield can launch Buffalo fighters, dauntless dive bombers, and Avenger torpedo bombers, while the second airbase has only B-17 bombers. The shipyard can send out PBY Catalinas and

PT boats. Begin by launching four squadrons of Buffalo fighters, all three squadrons of B-17s, and two Catalinas. The key is to get them all in the air so they are not caught on the ground.



Launch all your fighters and your B-17s and Catalinas into the air.



While not intended as interceptors, the many machine guns that gave the B-17 its nickname—Flying Fortress—can shoot down enemy bombers.

Send your fighters to engage the enemy bombers headed in from the northwest. Order your B-17s to fly to a position between the enemy aircraft and your airbases. Their machine guns can act as a last line of defense against the smaller Japanese carrier-based bombers. Send one Catalina

to the southwest and the other to the north to get them out of the fight's way.

After you give your squadrons launch and flight orders, take control of the lead fighter squadron and start shooting down enemy planes. The Buffalo is nowhere as powerful or rugged as the Wildcat, so you must use the skills you have developed in past battles to make up for the less capable fighter. It is imperative that you prevent the Japanese bombers from destroying your main airfield from where you launch your fighters. The first waves of enemy aircraft head to bomb your two airfields, so stop them. If one of your fighter squadrons is eliminated, quickly launch a new one.



Help defend Midway by flying a fighter to shoot down enemy bombers.



Tip
If enemy planes manage to drop their bombs on your bases, don't waste time seeking revenge. Instead, target incoming planes that still have their bombs attached. Your base can take some damage, but not too much.



Keep shooting down enemy bombers and replacing lost squadrons with fresh ones from your airfields.

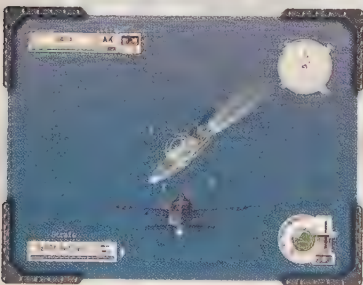
After you completely destroy the first wave or they retreat, get ready for the second wave. If some of your squadrons are down to only one fighter or have taken a lot of damage, order them to land so you can then launch a new, full-strength

squadron. Be sure to keep some of your planes in the air. Since you want as many fighters up as possible, fill out these new squadrons with four or even five fighters if the squadrons staying on patrol are down to two fighters. You can have a total of twelve planes from this airbase, so get as many up as possible, however possible.

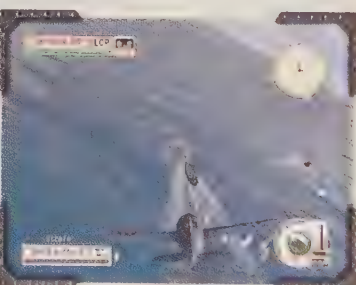
The second wave of enemy bombers attacks both your airfields and shipyard. Don't waste resources on the shipyard. Its destruction doesn't really affect your ability to complete your objectives. However, your airfields are vital. As before, keep your B-17s in close and send your fighters out to intercept those enemy squadrons headed toward your airfields. Take control and continue to shoot down enemy bombers. Replace your losses as squadrons are eliminated.

Sink the Invasion Fleet

When the second bomber attack wave is over, the Japanese send in their invasion fleet from the southwest. Two destroyers escort the four troop transports. Sink all the transports before they launch their landing craft to complete the hidden objective.



Strafe the transports with your fighters to quickly sink them.



If the troop transports launch landing craft, you will have to destroy those as well. Just strafe them with your fighters.

Speed is of the essence. What you use depends on the results of the earlier air raid. If your bomber airfield is still intact and you can land and reload on them, order your B-17s to bomb the enemy ships; otherwise, hold them for later. Your fighters that are still in the air are your best choice for repelling the invasion. The Buffalos can strafe and sink troop transports, so order them to attack and take control of one squadron. Target the holds near the ships' bows and sterns to quickly sink them. If the transports manage to launch landing craft, then you will need to strafe and sink those as well. You do not have to sink the destroyers, though you can after taking care of the transports.



If some of your fighter squadrons were eliminated and you need to launch more during the invasion, either launch dive-bombers or load up bombs on your fighters so they can bomb the destroyers after they have strafed the transports.

Sink the Carriers

Since the first two waves of bombers failed to completely destroy Midway's defenses, the Japanese Carrier Strike Force has sailed into range and is launching a second strike against your airfields. The fleet is to the northwest of Midway. Send your Catalinas toward this corner in order to detect the two carriers—the *Kaga* and the *Akagi*—and their escort destroyers. As before, you must defend your airfields. However, this time, use only a couple of fighter squadrons. Since you can now attack the fleet, launch a couple of Avenger torpedo bomber squadrons. Send them due west from Midway so you can then come at the carriers from the south. This keeps your torpedo bombers out of the path of the incoming attack and most fighter patrols.



What you have available for attacking the carriers really depends on what survived the air raids. You can still win the battle even if your fighter airfield has been destroyed. You still have the planes in the air. You just can't land them and launch new squadrons. In that case, you really have to rely on your B-17s to hit the carriers hard. On the other hand, if the bomber airfield was destroyed, hold your B-17s for the carriers.

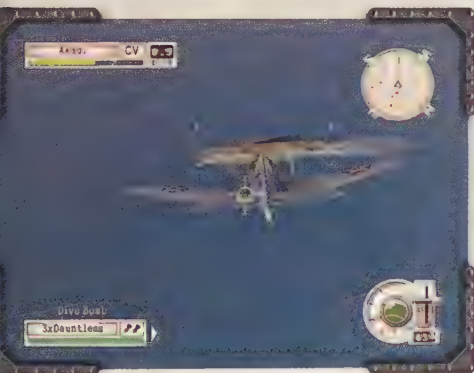
U.S. Campaign



B-17s can greatly damage carriers and even sink them if you get multiple hits. The key is to approach the target so the bombs drop down the length and result in multiple hits.

Also send in your B-17s to make a bombing run on the carriers. In order to maximize these bombers' damage potential, send them to a point from which they can begin a bombing run that takes them down the carrier's length—from bow to stern.

Keep your B-17 squadrons spaced so you can see the results of the first bombing run before starting the next. Take control of the bombers as they come into range and begin dropping bombs a bit before your crosshairs touch the carrier's bow. If you can drop your line of bombs down the carrier's length, a single squadron of B-17s can sink a carrier on their own. Depending on the results, send in the other squadrons to either finish the job or attack the second carrier. Remember to concentrate on one carrier at a time. Between your B-17s and Avengers, you can sink one of the carriers.



Send in your dive-bombers from the *Yorktown* first to lure the enemy fighters away from your torpedo bombers.



The torpedo bombers from the *Yorktown* should come in from the north to avoid some of the AA fire and get a good shot at the carrier's side.

By the time you make your first attack runs, the *Yorktown* shows up to help. Launch a squadron of Wildcats to protect your carrier from enemy bombers and then put up two squadrons of Avengers and one squadron of Dauntlesses. Send your bombers due west so you can come at the enemy fleet from the north. Concentrate your attacks from the *Yorktown* and Midway on a single target to sink both carriers without having to launch second strikes. After you accomplish this, the mission is complete.

Surprise at Midway

While the Japanese thought they were surprising the Americans with their attack on Midway, the United States already knew about the attack and were waiting. They were able to get their planes in the air and defend the airfields. While air strikes were launched from Midway, they failed to cause any damage to the Japanese carriers. However, dive-bombers from the *Yorktown* caught the Japanese carriers as they were preparing a second strike against Midway, sinking both the *Akagi* and the *Kaga*.



Endgame at Midway

Background

4 June 1942. 1700 hours Zulu time.

Thanks to the *Yorktown*'s miraculous arrival, the invasion of Midway has been averted, and two Japanese carriers now lie on the floor of the Pacific Ocean. The battle is far from over, though—*Yorktown* is mortally wounded, and now the *Enterprise* and *Hornet* must finish the job.

Two Japanese carriers remain, and the stage is set for a final showdown. On Fletcher's orders, Henry moves his flag to the *Enterprise* and steels himself for a confrontation for which the prize is total domination of the Pacific Theater.

Tactical Map



Objectives

Primary Objectives

- Find the Japanese carriers
- Destroy the Japanese carriers
- One of your carriers has to survive the encounter

Secondary Objectives

- Destroy the patrolling Japanese cruisers
- Destroy the attacking Japanese submarine

Hidden Objectives

- Launch an air strike on the enemy carriers before your position is reported
- Destroy the Japanese reinforcements

Order of Battle

Class	Type	Number
CV	Yorktown-class aircraft carrier	2
CA	Northampton-class cruiser	1
DD	Fletcher-class destroyer	2
Plane	F4F Wildcat fighter	44
Plane	SBD Dauntless dive-bomber	42
Plane	TBF Avenger torpedo bomber	42
Plane	PBY Catalina recon plane	2

Mission Walkthrough

Find the Japanese Carriers

The campaign's final mission requires all the skills and knowledge you have learned along the way. You have two carriers under your command, so you can launch a total of eight squadrons. This gives you a lot of firepower for attacking targets at long range. In addition, you also have a couple of Catalinas to help locate the enemy.



Your Catalinas are your eyes during the early part of this mission and can head out to find the enemy carriers.

Note

The Japanese carriers do not always start in the same place. They can be in the map's northwestern, northeastern, or southeastern corners. Therefore, it is important that you send your Catalinas north and east along the map edges. This helps them avoid enemy aircraft. If the Catalinas don't find the carriers in the northwest or southeast, they are in the northeast. Also, watch from which direction the enemy aircraft come—this will lead you back to their carriers.

Right at the start, launch a squadron of Avengers loaded with depth charges rather than torpedoes. There is a Japanese submarine in the area that you must sink before it can damage your fleet. Your Catalinas also carry depth charges. Send in your Avengers as soon as you locate the sub.

Also, order one of your closest destroyers to attack the sub. If your aircraft fails to sink it, you have a backup. Dropping a depth charge from a bomber is just like dropping a normal bomb. Be sure to target the sub so a white bracket displays the location. Hold down the Bomb Mode button and then release while over the bracket.

While you are waiting for the first Avenger squadron to take off, order two squadrons of Wildcat fighters from each carrier to take off. That gives you 12 fighters for combat air patrol. Also send your Catalinas to the north and east to begin searching for the enemy carriers. Finally, order up three squadrons of torpedo-carrying Avengers so they are ready when you locate the enemy. Order your fighters to attack any enemy aircraft before they can get close enough to locate your carriers.



Load Avengers with depth charges for attacking submerged submarines. Drop them like a normal bomb.



Your fighter CAP must shoot down enemy recon planes before they can get close enough to locate your carriers.



Tip

It is important to keep your carrier group in constant motion. Order it to head north in the beginning. After you detect the enemy carriers, set a course parallel to them. By keeping your ships moving, you can move by the time an enemy fleet can send bombers. A good tactic is to change direction often—especially if you see enemy planes headed to your current location. Make a U-turn and head in the opposite direction.

Sink the Cruisers



By having your Avengers already in the air, you can quickly send them to sink the closest cruiser.

Your Catalinas locate two Japanese carriers toward the map's middle. They are looking for your fleet and must be sunk before they can find you. Send your three squadrons of Avengers to sink the closest cruiser. Keep them fairly close together so that they all make their runs within a short amount of time and cause more damage than the cruiser's crew can repair.

After the first cruiser is down, get the Avengers back to the carriers and launch another strike at the second cruiser to sink it and complete a secondary objective. Plus, those cruisers can sink your carrier group if they get in too close.

Another sub begins near the map's middle. Either keep a squadron of Avengers with depth charges in the air or be ready to send a destroyer to sink it. After you sink the second sub, you do not have to worry about any more of them for the rest of the battle.



If you don't have any aircraft with depth charges nearby, you may have to use a destroyer to sink the second submarine. Just sail right over the top and drop depth charges as you go.



Tip

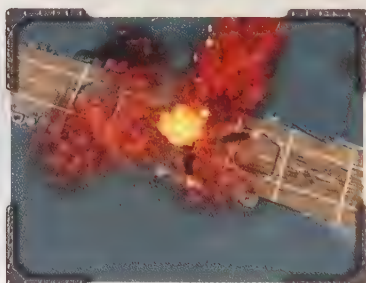
Throughout the battle, you must keep three, preferably four, squadrons of Wildcats in the air between you and the enemy fleet. Engage enemy bombers at a distance from your carriers so your fighters have plenty of time to shoot them down. If a squadron takes losses and is down to only one fighter, order it to land so you can launch a squadron with three fighters to replace it.



While your bombers are flying toward their targets or returning to the carrier after delivering their ordnance, take control of your fighters and shoot down some enemy bombers or clear the skies ahead of your bombers by killing Zeros.

Strike the Carriers

After your Avengers have sunk both cruisers, get them back to the carrier and launch four squadrons of Dauntless dive-bombers. By this time, you should know the enemy carriers' location. Now is the time to attack. When all of your dive-bombers are airborne, keep them together and send them to attack the closest carrier. Take control of the lead squadron and dive down to drop your bombs. Switch to the next squadron and take control of it as it makes its bombing run. The Japanese carrier does not stand a chance against 12 dive-bombers. If you sink the carrier without using all four squadrons, order the remaining squadrons to attack and hopefully sink one of the destroyer escorts. Don't go for the second carrier yet.



Your dive-bombers are perfect for sinking carriers, especially when you have several squadrons attacking one right after another. If you can start several fires and cause lots of damage in a short amount of time, the carrier will be unable to repair quickly and will sink.



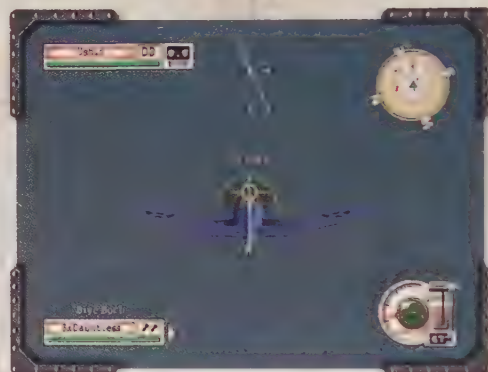
Note

Even though you have sunk one of the Japanese carriers, don't expect the number of squadrons of enemy aircraft to be cut in half. You still have to keep your fighters up on CAP.



In response to your attack on the carrier group, the Japanese send in some reinforcements—another group of ships consisting of two cruisers and two destroyers. Sink all four ships to complete a hidden objective. All of your bombers should be headed back to the carriers.

If any squadrons were completely destroyed, you can immediately launch more Dauntless squadrons. Send them to sink the destroyers in the reinforcement group and order your fleet to sail away from it. This buys you some time to sink these enemy ships before they can use their artillery to attack your carriers. Also try to maneuver so that one of the islands is between you and the reinforcement group. This prevents them from hitting you with torpedoes.



Destroyers are tougher targets for dive-bombing since they are much smaller than carriers. Aim for the ship's bow and you should get a hit somewhere in the middle.



Torpedoes work best against cruisers since they hit where there is less armor—below the waterline.

The destroyers are your first targets since they are faster than the cruisers and will race toward your fleet at full throttle. Dive-bombers work best on them. Two squadrons of Dauntlesses should have no trouble sinking one destroyer. After you eliminate the destroyers, send Avengers with torpedoes to sink the cruisers. Concentrate on one cruiser until you sink it, then begin making runs against the second cruiser.



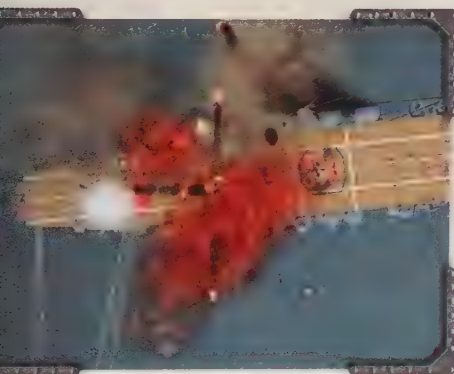
While the enemy seems to have an endless supply of planes, you do not—especially Wildcat fighters. Therefore, you do not have much extra time to sink every enemy ship. Focus only on those that are objectives—the two patrolling cruisers, the four ships in the reinforcement group, and the two carriers. Don't even bother with the ships that escort the carriers. They only cost you time.

With the reinforcements at the bottom of the screen, it is time to resume your attack on the enemy carrier. Send up four squadrons of dive-bombers. Use the same tactic as before and keep your Dauntlesses

together as they fly toward the last enemy carrier to sink. Perform the bombing runs yourself and send the carrier to join its sister. As soon as the carrier sinks, the mission is complete and you have turned the tide of the war in the Pacific.



Send in a second strike of Dauntless dive-bombers to sink the second carrier.



Instead of sending in four squadrons of dive-bombers, you can try attacking with two squadrons each of dive-bombers and torpedo bombers. Just make sure they all hit at about the same time.



MAGIC at Midway

Even before the attack on Pearl Harbor, U.S. Naval Intelligence had cracked the Japanese code used by Japan's diplomatic service as well as some of the codes used by the Imperial Japanese Navy. The operation to intercept and decode the Japanese messages was codenamed MAGIC. Even as the Japanese created new codes, their similarity to previous codes and as their frequent use allowed MAGIC operators to crack these new codes as well. The first use of the intelligence gleaned by MAGIC was to move U.S. carriers to help prevent the invasion of Port Moresby, which resulted in the Battle of the Coral Sea.



By early May 1942, MAGIC had revealed Japanese plans to invade an objective referred to only as AF. If the location of AF could be determined, the U.S. Navy could set up an ambush for the Japanese fleet. Admiral Nimitz's intelligence unit at Pearl Harbor believed AF was Midway. The commander of this unit, Commander Joseph J. Rochefort, came up with a plan to find out for sure. He sent a message via undersea cable to Midway asking them to radio a message that the atoll's water plant had broken down and that fresh water was in short supply. Midway was to use an older code which was known to be compromised. Shortly thereafter, Naval intelligence intercepted a Japanese message concerning AF's water problem. That was the confirmation for which Nimitz was waiting.

As a result, the U.S. was not fooled by the IJN's decoy invasion of the Aleutian Islands, and instead positioned the U.S. carriers near Midway to ambush the Japanese before they could set up their own planned ambush. As a result, the U.S. sunk a total of four Japanese carriers during the Battle of Midway at the cost of only one of its own—the *Yorktown*. However, the U.S. could replace its carrier. By this time, the American shipyards were building many new carriers as the country shifted from a peacetime to war industry. The loss of these irreplaceable Japanese carriers marked a turning point in the war. Japan could no longer maintain the offensive, and from this time on, fought to defend its conquests.

The Challenge Missions: Plane Challenges



The challenge missions focus on a single type of unit, from a fighter plane to mighty battleships.

While the single-player campaign lets you command U.S. forces during battles and engagements, from Pearl Harbor to the Battle of Midway, the challenge missions break out of the main storyline and focus on the main unit types. Each challenge tests your proficiency with planes, ships, or submarines. Furthermore, in many of the challenge missions, you get to command Japanese forces and see some of the campaign missions from the opposite side.

Shortage of Reinforcements

Background

9 December 1941

Lead a squadron of Japanese Oscar fighters on a strafing run against a U.S. merchant convoy. Expect to encounter enemy fighter planes.

Tactical Map



Objectives

Primary Objectives

Destroy all cargo ships
Your squadron must survive

Secondary Objectives

Your plane must sink half of the cargo ships

Hidden Objectives

All squadron members must survive

Order of Battle

Class	Type	Number
Plane	Ki-43 Oscar	5

The Challenge Missions: Plane Challenges

Mission Walkthrough

Sink the Convoy



You get to fly a Japanese fighter for this mission—the Nakajima Ki-43 Oscar.

Your squadron begins in the north while the convoy is to the south and heading toward the southern map edge. If any of the cargo ships leave the battle area, the mission ends in failure. The Americans have a few squadrons of F2A Buffalo fighters on combat air patrol (CAP) over the convoy. However, these do not pose much of a threat to you.

In order to achieve the secondary objective, you must sink at least five of the ships on your own. Therefore, at the start, send your wingmen to down those Buffalos. Target one of the squadrons and then press the orders button to bring up the command menu. Select "attack" and the four fighters in your squadron will break away from you to go after the American fighters.

This mission, like most of the challenge missions, is straightforward. Your objective is to sink an American convoy of 10 ships—seven cargo ships and three fleet oilers. To accomplish this, you have been given command of a squadron of five Oscar fighters.



The convoy is located about five nm south of your starting position.



Order your squadron to attack the enemy fighters. This keeps them occupied while you go after the ships.



Catch up to the lead ship and approach at medium altitude.



Dive down at the lead ship, aiming for the holds.

Now you can focus on the convoy. Since you must prevent any of the ships from leaving the map, fly toward the southern-most cargo ship. Don't target it by pressing the Target button or your fighters may go after it. There are gold brackets around all the ships in the convoy because they are mission objectives, so they are easy to find.



Work your way through the convoy, beginning in the south.

Cargo ships are most vulnerable to machine-gun fire aimed at either their forward or aft holds. Don't aim for the superstructure. Also, come down at the target ship in a dive so you have a better shot at the holds. If you can keep a couple of seconds of fire on one of the holds, you will explode and sink the ship.



Note

The most dangerous part of this mission is diving down on the cargo ships. It is easy to stay focused just a little too long and not be able to pull out of the dive in time, causing you to crash into the ship. It is better to pull up and come back around for another pass than to risk crashing. If you crash, you can always switch to another plane in your squadron, but you fail the hidden objective.





Aim for the middle when strafing a fleet oiler.

Concentrate on the lead ship first since it exits the map first. Then work your way through the convoy, starting with the southernmost ships. The fleet oilers' vulnerable spot is right in the middle, between the fore and aft super structures. If the enemy fighters start bothering you, order your squadron to regroup on you; they usually take some of the heat off you. Once you sink all 10 cargo ships, you complete the first plane challenge.

Saving Tulagi

Background

4 May 1942

You have command of the Japanese airfield on Tulagi as the Americans attack. The defense of the island is in your hands.

Tactical Map



Objectives

Primary Objectives

- Protect the airfield
- Protect the destroyers
- Protect the jetty building
- Eliminate the landing fleet

Order of Battle

Class	Type	Number
Base	Airfield	1
Plane	A6M Zero fighter	48

Mission Walkthrough

Defend the Airfield

This mission puts you in command of an airfield with four squadrons of A6M Zero fighters. You must defend Tulagi against four main attacks. The first threats are squadrons of B-17 bombers that target your airfield. Quickly get all four squadrons into the air and send them southeast to intercept the bombers.



The airfield is the first target the enemy tries to bomb.

Note

Since B-17s are tough, an option is to launch three squadrons of four Zeros each, rather than four squadrons of three. This gives each squadron some additional firepower. Then as your squadrons take losses, you can launch a fourth squadron of three fighters and continue with four squadrons for the remainder of the mission.

The Challenge Missions: Plane Challenges



Try to come in from the side to attack the B-17s.

ased bomber. A good tactic is to close on them while flying at a shallow angle away from them. Then as you get near, turn to come in at them from their side. Aim for the engine since they are more vulnerable than the fuselage.



Aim for the engine nacelles on the bombers.

ven over a target. It takes only one squadron of bombers to get through and destroy your airfield—and end the mission.

There are a total of eight squadrons of B-17s coming in, to keep up the pressure and be sure to replace any eliminated fighter squadrons by launching new squadrons from the airfield.



Throughout this mission, you must switch between squadrons. Don't waste your time and skill flying toward the enemy. Instead, jump into units that are engaging the enemy or just about to. This allows you to put your aerial gunnery skills to good use.

The B-17 is not called the "Flying Fortress" for nothing. These planes have lots of machine guns for defense and can also take a lot of damage. Therefore, you usually don't want to get as close to them as you would to a smaller, carrier-

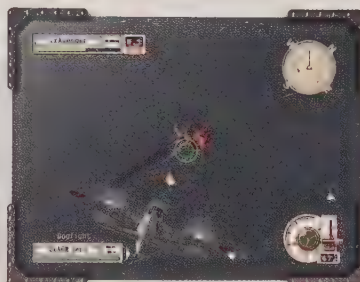
During these raids, you must constantly check the tactical map and order your squadrons to attack the incoming bombers. Intercept them as far away from your airfield as possible because they can begin dropping bombs before they are

Protect the Destroyers

As soon as you shoot down all but one or two of the B-17 squadrons, send one or two of your fighter squadrons to a position southwest of your airfield to prepare for the next attack. If some of your squadrons are down to a single fighter, send them back to base so you can launch a new, full-strength squadron—or crash this fighter into a B-17 so you don't waste the time it takes to send it back to the airfield.



You now have to protect these destroyers.



The carrier-based bombers come in fast, so you must engage and shoot them down as quickly as possible. Luckily they don't require as many hits to destroy as B-17s.



After you shoot down all the B-17s, you must defend a couple of destroyers off Tulagi's southern coast. Twenty squadrons of carrier-based bombers will attack them—36 Avenger torpedo bombers and 24 Dauntless dive-bombers. Get your planes to the destroyers and engage the enemy bombers at a distance. Luckily, the destroyers are moving and not as easy to hit as an airfield. Therefore, if just a few bombers get through, you should be okay. Since the dive-bombers are more likely to score hits than the torpedo bombers, be sure to go after every squadron of Dauntlesses. As before, take control of those squadrons that can attack rather than those that are flying out to the enemy.



Defend the Jetty Building



Dauntlesses are headed for the jetty building.

attacking the destroyers, send a couple squadrons to the jetty building to prepare for the attack.

This time you must shoot down 15 squadrons of dive-bombers—45 Dauntlesses. Since they must fly over the jetty building to bomb it, you have a bit more time to shoot them down. However, they come one squadron after another. Use the same tactics that you did before to shoot them all down.



Shoot down all the dive-bombers before they can drop their ordnance.

Sink the Landing Force



Two troop transports are launching landing craft to carry U.S. troops to the beaches of Tulagi.



Sink the troop transports first.

craft reach the shore. Target those closest to the island first. It takes a long burst of machine-gun fire to send each of those LCPs to the bottom of the ocean. After you sink the entire landing force, you complete the mission.

The final attack is the enemy invasion. The Americans have two troop transports to the south of Tulagi that are launching landing craft. You don't have time to land any of your squadrons to reinforce them, so send them all to sink the ships. Assign one squadron to attack each troop transport while the other two squadrons go after the landing craft. Strafe the decks of the troop transports to sink them before they can launch more landing craft. Now you must ensure none of the landing



Be careful you don't crash into the sea when strafing the small landing craft.



Attack on Force Z

Background

10 December 1941

The British have sent a battleship group, Force Z, to reinforce Singapore. Use Japanese land-based bombers to attack and sink the British ships.

Tactical Map



Mission Walkthrough

Sink the Carrier



The battleships are tough enough to sink. However, with air cover, it will be nearly impossible.

The Royal Navy has sent a naval force to help secure Singapore. Force Z consists of two battleships, a carrier with fighters, and two destroyers. It is headed east, and you must sink the battleships before either of them exits the map; otherwise you fail the mission.

Your first target is the British carrier since it continues to launch fighters as long as it is afloat. Those fighters make it near impossible for your bombers to sink the two battleships.

In order to sink the carrier and complete the hidden objective, you must amass your bombers. At each airfield, launch three squadrons of Betty bombers and order them to fly to the bomber rally point—located due east of the enemy fleet. Use the Betty since it can carry more bombs than the Nell. Also launch one squadron of Oscar fighters from each airfield and send them toward the fighter rally point.

Objectives

Primary Objectives

Destroy the *Prince of Wales* and the *Repulse*

Hidden Objectives

Destroy the Allied carrier

Order of Battle

Class	Type	Number
Base	Airfield	2
Plane	Ki-43 Oscar fighter	60
Plane	G3M Nell bomber	60
Plane	G4M Betty bomber	60



Take control of an Oscar and shoot down as many British Hurricanes as possible to make way for the bombers.

When all the bombers are in position, order each squadron to attack the carrier. From the rally point, they fly west and bomb the carrier. By attacking from the carrier's front, they will avoid the additional AA fire they would take if coming in from the sides. Order your fighter squadrons to fly ahead of your bombers and begin shooting down the enemy fighters.



Fly the lead Betty toward the fleet.

Take control of the Oscars for a bit until the bombers get close to the fleet. Then switch to the lead bomber and line up the bomb crosshairs so they run down the carrier's length from bow to stern. Use your rudder controls to steer and keep your bomber level; drop your bomb load a little before the crosshairs touch the carrier's bow. This should put your bombs right on target and maximize your number of hits.

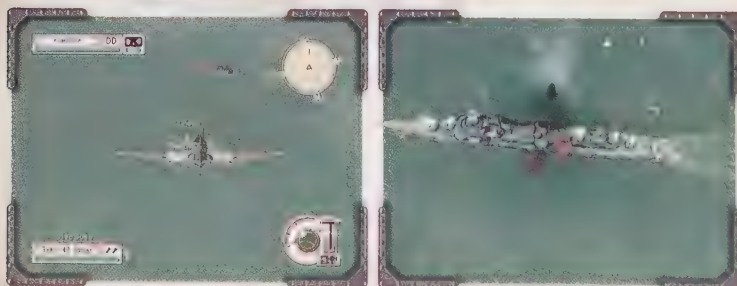


You want to drop your bombs a bit early since the carrier is moving in the opposite direction.



Don't worry about losing fighters or bombers during this strike against the carrier. You have lots of bombers, and taking out the carrier as early as possible is vital to the success of this mission.

Sink the Battleships



Load up your fighters with bombs and dive-bomb the destroyers.

If the enemy still has fighters in the air, and your fighter squadrons have been shot down, launch one or two new fighter squadrons to clear the air over the enemy fleet. Also launch from each airfield one fighter squadron loaded with bombs to attack the enemy destroyers. Those Fletcher-class destroyers can put out a lot of AA fire that will make sinking the battleships even more difficult.

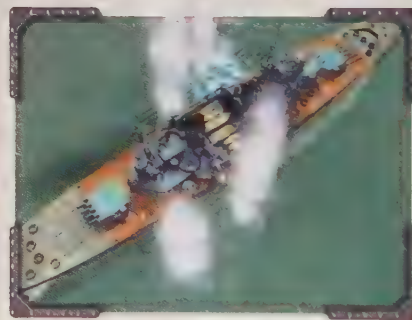


Approach at low altitude and high speed to avoid as much AA fire as possible.



Drop the torpedoes in close to ensure a hit.

After launching your fighters to clear the way for the bombers, load your bombers with aerial torpedoes instead of bombs. Battleships are tough to sink, and only torpedoes will do the job. You can use either Betty or Nell bombers. Order all your bombers to attack the *Repulse* since it is in the lead. Focus on this ship until you sink it, then go after the *Prince of Wales*. Take control of the lead bombers as they begin their torpedo runs. Come in low at full throttle so you can get in close to launch your torpedo before the AA shoots you down.



Hitting the battleships from both sides causes them to sink quicker by putting more holes in the hull than the crew can repair and overwhelming the pumps.



Many of your bombers will be shot down before they leave the area around the battleship. However, if only one survives, take control of it and crash it into the sea. This allows you to immediately launch a new squadron without having to wait for the single bomber to fly back to the airfield and land. This is a time-sensitive mission, and if you can take out the carrier early, you will have enough bombers to spare for this tactic to work.

The Challenge Missions: Ship Challenges

Strike on the Monster

Background

28 February 1942

Take control of the Japanese battleship *Fuso* and run a gauntlet of U.S. ships as you seek to escape to the open seas. The *Yamashiro* has been sent to assist you.

Tactical Map



Order of Battle		
Class	Type	Number
BB	Fuso-class battleship	2

Mission Walkthrough

Sink the Allied Ships

For this mission, you will use your artillery to sink seven different waves of enemy ships. You begin with a single *Fuso*-class battleship. About halfway through the mission, a second battleship joins you; however, you can't control this battleship. It just follows you and engages targets on its own.



The *Fuso* is yours to command. You must sink a total of 19 enemy ships during this mission.

Objectives

Primary Objectives

Reach the evac point to escape the area

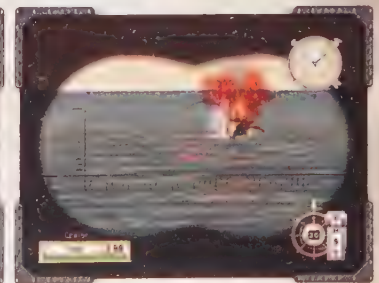
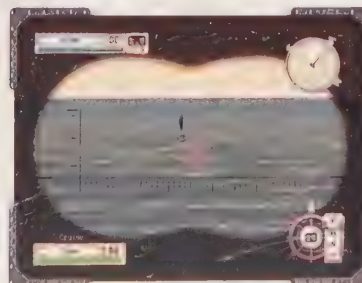
The *Fuso* must survive

Secondary Objectives

The *Yamashiro* must survive

Hidden Objectives

Eliminate every Allied wave



Target the destroyers as early as possible. A couple hits with your main guns easily sinks these small ships.

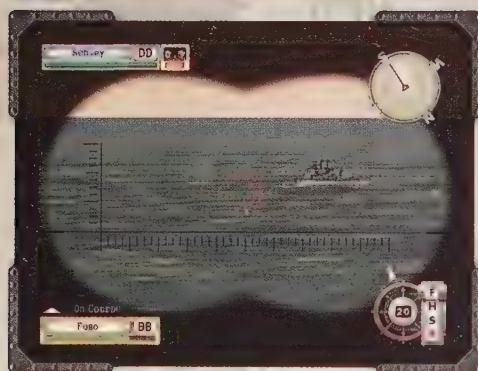
The evac point that you must reach to complete the mission is located to the west. However, the mission also ends if you complete the hidden objective, which is sinking all the enemy ships. The first wave consists of three destroyers that approach from the southwest. Your battleship has a range advantage, so you can begin shooting at the destroyers before they can shoot at you.

Use the binoculars to line up your shots. Since they are closing, they come at you head-on. Therefore, aim right in front of the bow of the destroyer you are targeting and fire as many guns as you can. At first, only your 14" guns have the range. However, if you get a hit with one or two of these, the destroyer will be headed for the bottom.



Tip

Give the ship a heading order in the tactical map. You can do this as often as necessary, such as when you want to adjust your heading so more of your guns will bear on the enemy. Unless you adjust speed or turn the wheel, the crew takes care of all navigation—including torpedo avoidance. However, if you are manually controlling the ship by turning or adjusting the throttle, the crew can't perform torpedo-avoidance maneuvers.

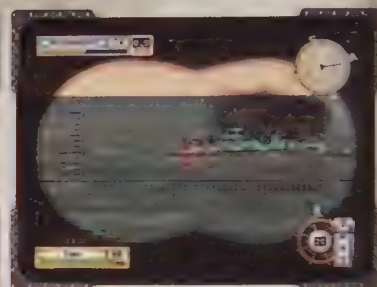
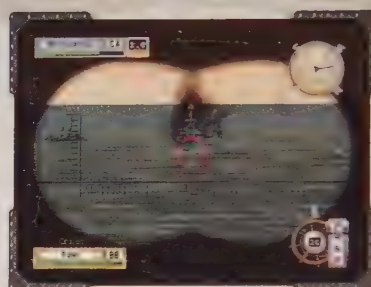
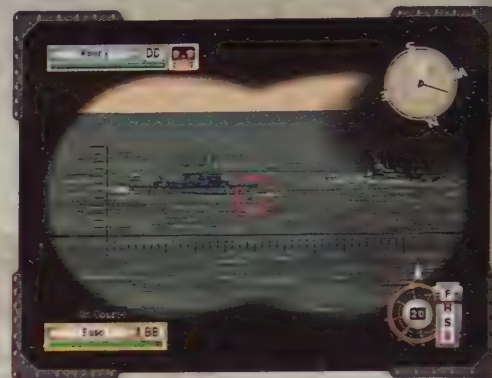


As the destroyers turn to reveal their sides, you must lead them in order to get hits. Aim in front of the bow and watch your splashes to see how you must correct your aim for subsequent shots.

Focus on the closest destroyer first, and after you sink it, move on to the next. Once the destroyers start to turn, they launch torpedoes at you. Go to the tactical map and zoom in all the way to see the individual torpedoes. To avoid them, you can slow down or even move your throttle to full back or reverse.

Another tactic is to turn away from the torpedoes. This may allow you to outrun them if they were fired at extreme range; also, your stern presents a smaller target than your broadside. As the destroyers come closer, you can fire your 5.5" secondary guns at them. However, the destroyers will also be able to fire their artillery at you. Their 5" guns won't cause much damage though.

As the destroyers get in closer, you won't have to lead them as much since your shells will arrive on target faster.



If possible, hit the cruisers while they are still coming at you because they can only fire some of their guns in this position. However, when they turn, they are easier for you to hit.



Tip

If you do take a torpedo hit, quickly order your crew to repair the damage. In fact, since torpedoes are the only things that damage you for the first couple of waves, assign the crew to water duty right from the start.



The second wave has four destroyers. Use the same tactics as before and try to sink them early before any can launch torpedoes. The third wave is a bit tougher. Though it has only one destroyer, it also comes at you with two cruisers. Because the destroyer is usually in the lead, target and sink it first before it can launch torpedoes. Then go after the closest cruiser. Keep your broadside toward the cruisers so you can fire all your main guns at them.

The cruisers do not have torpedoes, but their 8" guns can still cause some damage. Watch out for fires or damage to your weapons and maneuverability. About this time, the *Yamashiro* joins you. While you can't control it, this battleship adds its firepower to the battle. In order to complete your secondary objective, you must protect the *Yamashiro*. Therefore, target enemies closest to it even if they are not the closest enemies to your ship.

The Challenge Missions: Ship Challenges



Fire full broadsides at the *USS Texas* to sink it before it can cause much damage to your ships.

much. Aim at the bow to hit toward the rear. Since the battleship maneuvers to fire all of its guns, you should too. Hold down the Fire button while keeping your crosshairs centered on the bow so your guns fire as soon as they are loaded. After several hits from your main guns, the battleship slips beneath the waves.

Note

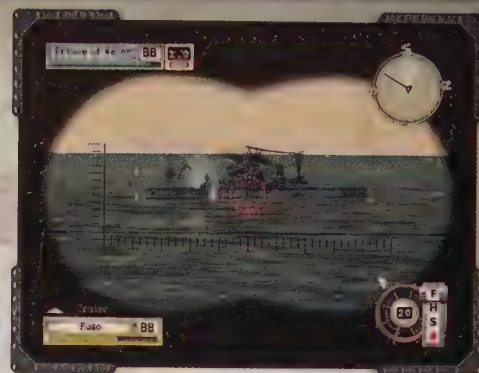
During these engagements, maneuver so that you can maximize the number of guns you bear on the enemy. There is no reason to sail toward the evac point. However, you can use the islands in the north-west as cover to protect you from torpedoes and ships. These islands can be great when trying to finish up one wave while another is on the way.

The *Repulse* can use some serious damage, so sink it before the second British battleship arrives.



The fourth wave is a bit tougher—a New York-class battleship with a couple destroyers. Sink the destroyers first so you don't have to worry about torpedoes while fighting a battleship. Since the battleship is not as fast as a destroyer, you do not have to lead

The fifth wave usually arrives while you are still finishing up with the battleship. However, it contains only three destroyers. These are usually a bigger threat to the *Yamashiro* than to you, so sink them quickly. Also, another wave is on the way.



The *Prince of Wales* is all that stands between you and the safety of the open seas.

The sixth wave features the battleship *Repulse* and a destroyer. You must work quickly or at least maneuver your group toward the east in order to give you time to sink these two ships before the seventh and final wave appears—the British battleship *Prince of Wales*. As with the *Texas*-class battleship, use broadsides against the two British battleships to sink them before too many of their shells hit your ships. If the *Prince of Wales* arrives before you sink the *Repulse*, maneuver to keep both battleships off to one side—you don't want to be surrounded. After you sink all enemy waves, you complete the mission.



Battle of the Java Sea

Background

1 March 1942

Command a Japanese cruiser division at the Battle of the Java Sea as you try to sink the U.S. flagship, USS *Houston*.

Tactical Map



Objectives

Primary Objectives

Destroy the USS *Houston*

The *Nachi* must survive

Order of Battle

Class	Type	Number
CA	Tone-class cruiser	1
DD	Fubuki-class destroyer	2

Mission Walkthrough

Waves of Cruisers



You command a cruiser division with orders to sink the USS *Houston*.

This mission can be tough to complete the first few times. You are given command of a Tone-class cruiser, the *Nachi*, with a couple of destroyers to form a group. Your objective is to sink the USS *Houston*. However, before it appears, you must

first defeat four other waves of cruiser squadrons. Each squadron consists of a cruiser and two destroyers.



Note

You command a Tone-class cruiser, the *Nachi*. This ship was somewhat unique in that all four turrets were positioned forward of the cruiser's superstructure. The second turret from the bow was elevated so it could fire over the first turret. However, the third and fourth turrets were at deck level and could not fire in an arc of 75 degrees from either side of the bow, and no guns could fire through an arc of about 45 degrees from either side of the stern. Therefore, unlike most ships that have turrets both fore and aft that can fire at enemies through 360 degrees, the Tone is limited to a firing arc of about 270 degrees with only about 40 degrees to either side in which all guns may fire at a single target.



The Challenge Missions: Ship Challenges

Your group begins in line formation with your cruiser in the center and a destroyer to the front and rear. This formation is fine for this battle, so there is no need to change it. The first wave of Allied ships comes from the northwest. Therefore, in order to ensure a good broadside, set a course either due west or northeast. This puts your entire group in a line so that all ships can fire at an individual target with all or most of their guns.

After setting a new course, switch to your destroyers and fire spreads of torpedoes toward the oncoming enemy cruiser. Fire your torpedoes at the cruiser as well as to both sides. You are just trying to put enough torpedoes in the water so that one gets a hit. Fire

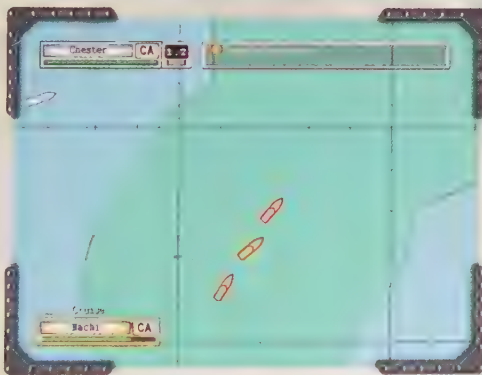
torpedoes from your cruiser as well. You will probably be lucky to get more than one or two hits during the mission. However, by firing these spreads, you force the enemy to maneuver and avoid your torpedoes. This might force the enemy to maintain a head-on approach toward you, preventing the enemy from firing more guns, or the enemy may stop a ship to miss a torpedo, making it an easy target.

The enemy destroyers will try to launch torpedoes at your ships. While they can be visible by their wakes in the normal view, zoom in on the tactical map to see where the individual torpedoes are located and where they are going. Taking more

than one or two torpedo hits to your cruiser can be deadly when combined with the artillery fire you will take from the enemy cruisers. Therefore, keep track of enemy torpedoes. There will usually be only one group fired by each wave—depending on how quickly you sink their destroyers.



It is very important to fire spreads of torpedoes at the beginning of engagement with each and every wave of Allied ships.

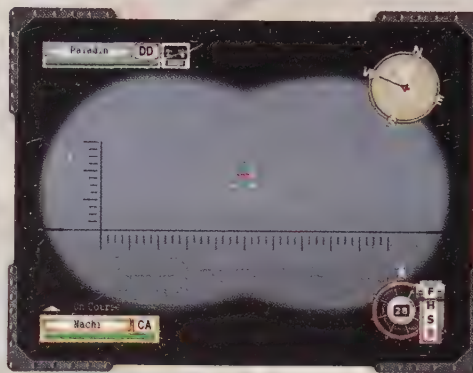


Fully zoom in on the tactical map to help avoid enemy torpedoes.

Avoid them by turning toward or away from the torpedoes, or by slowing down your ship so one will pass in front of your bow. Your crew will man your artillery while you are on the Map screen, so be sure you have a target selected for them to fire on. After avoiding a torpedo, you can resume your control of the artillery and sink the enemy.



You have a bit of time between when you first detect an enemy wave and when they are within artillery range. Use this time to set a heading that allows for broadsides, and fire spreads of torpedoes from all three of your ships.



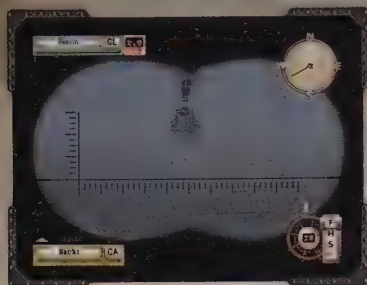
The enemy destroyers can be tough to see through the fog at a distance. Use the targeting bracket to keep track of small ships until they come into range.



As the destroyers turn, you must lead them in order to get hits.

usually take out the destroyers fairly quickly, especially once they come into range of your destroyers' guns.

After firing your torpedoes, switch to artillery on your cruiser and aim at the closest ship, which is usually a destroyer sailing directly toward your group. Watch the turret indicators on the crosshairs. Fire as soon as they turn green, which indicates that the target is in range. Aim at the waterline on the bow and then watch for the splashes to see where your shells hit. Adjust fire accordingly. Try to sink the destroyers before they can turn and launch their torpedoes. With some practice, you can



Try to engage the cruisers while they are heading directly toward you. They are easier to hit, and they can only fire some of their guns at you.



When the cruiser turns, aim at the bow to get hits while the cruiser is moving. This usually scores you hits on the rear turrets—possibly hitting a turret or magazine, which causes either a fire or an explosion that destroys the ship.

With the Allied destroyers sunk, you can then concentrate your fire on the enemy cruiser. If possible, try to attack it while it comes head-on. It is easier to hit and it can't return as much fire. If the enemy cruiser starts firing, watch for damage, especially fires. Order your crew to repair damage quickly and check for damage to your weapons. A malfunctioning turret seriously affects your firepower, so repair and get them back in action as quickly as possible.

During the engagement with the Allied ships, keep track of which turrets can fire at the enemy. If some are unable to fire due to the target being out of their firing arc, turn the ship so that all turrets can fire; this allows you to fire

eight guns at a time at the enemy. Keep firing until you sink the enemy cruiser. As it is going down, quickly check the Repair screen to see if you need to reassign crew before beginning the next engagement.

Once you sink the first wave, check the tactical map to locate the next wave. It, too, has a cruiser and two destroyers. Follow the same tactics as before for this and subsequent waves. Set a course so you can keep your ships broadside to the enemy as they close—this is usually perpendicular to the direction from which they are coming.



The *Houston* is the last cruiser you must sink in order to complete the mission.

Next, launch spreads of torpedoes from all three of your ships. Once in range, fire artillery at the closest destroyer and sink both destroyers before finally attacking the cruiser. There are a total of five waves; the *USS Houston* sails in the fifth and final wave. You do not have to sink the destroyers in this last wave, but you might as well since they are ahead of the *Houston*. Once you sink the *Houston*, you complete the challenge mission.

Hunt for the Cruiser

Background

11 June 1942

Seek vengeance upon the Japanese cruiser *Nachi* with three American Fletcher-class destroyers. Rendezvous with the seaplane to help you locate your target.

Objectives

Primary Objectives

Rendezvous with the reconnaissance plane
Find and destroy the *Nachi*

Hidden Objectives

Destroy all enemy cruisers
Destroy all enemy ships

Secondary Objectives

All of your destroyers must survive

Tactical Map



The Challenge Missions: Ship Challenges

Order of Battle

Class	Type	Number
DD	Fletcher-class destroyer	2
DD	Clemson-class destroyer	1

Mission Walkthrough

Rendezvous with the Recon Plane



The Fletcher-class destroyer is the top of the line.

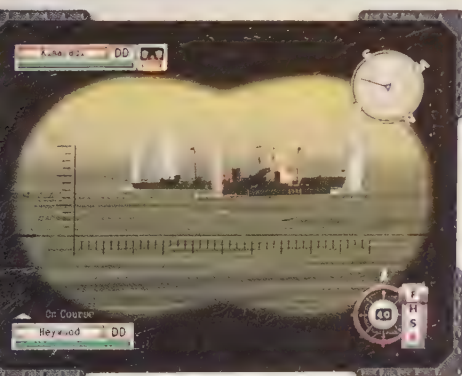


The recon plane is docked at an island near the map's center.

Like the previous challenge mission, this one can be tough since you have a limited number of ships and must take on a force that is much larger and more powerful. Your destroyer squadron consists of two Fletcher-class ships and an older Clemson-class destroyer. Your main objective is to sink the *Nachi*—however, you must find it first. When you meet up with the recon plane, it takes off and flies around to help you look for the *Nachi*.

Note

The enemy ships in this mission do not always have the same starting positions. Therefore, don't expect ships to be in the same spot as they were the last time you played this mission. This makes the mission even more difficult since you can't always plan ahead. If you can't complete it the first time, keep trying and learn from your experience.



You will usually run into a couple of destroyers near the mission's start. They may be together or apart.

While the *Nachi* is usually in the map's southern half, you will run into other ships along the way, including four enemy destroyers and two light cruisers. Try to engage these ships as they appear, sinking them quickly before you have to take on several at

once. Japanese destroyers and light cruisers can launch torpedoes, so it is important to keep track of these weapons on the fully zoomed-in tactical map.



The two light cruisers can damage your destroyer with their torpedoes and guns. Try to engage them one at a time rather than together so you can keep the advantage.

Try to go after the destroyers first since they are easier to sink. Just use artillery on the destroyers. However, fire torpedoes at the light cruisers. Be sure to aim far enough ahead and with a wide spread so you can get some hits. All of your destroyers have torps, so switch between them to get as many fish in the water as possible. Also use your artillery since the Kuma-class light cruisers are only slightly more powerful than your Fletcher-class destroyers.

Since your destroyers will take some damage during this mission, cycle among them and assign crew to tasks that require immediate attention—such as pumping out water after a torpedo hit or putting out fires. Your turrets will usually take some hits, so be sure to repair them to keep your firepower at its maximum strength.



The *Hayashio* is a Fubuki-class destroyer that is more on par with the Fletcher class. Luckily there is only one you must go up against. The other three Japanese destroyers are the older Minekaze class.



Frequently check the fully zoomed-in tactical map to see where the enemy torpedoes are. You may have to change speed or make some sharp turns to avoid them.

While your destroyer squadron must head south to rendezvous with the recon plane, consider heading somewhat north whenever you engage the Japanese ships patrolling the area. If you go south, you may run into more enemy ships that come at you from the south while you are trying to sink another ship to the north of your ships.

Sink the *Nachi*



Don't stay back and duel against the *Nachi* with artillery—your entire squadron will be sunk.



Fire torpedoes ahead of the *Nachi* in a wide spread.



Try to eliminate all the destroyers and light cruisers before you run into the *Nachi*. Sinking these other ships completes a couple hidden objectives and allows you to concentrate fully on the Japanese cruiser when it arrives. The *Nachi* can fire large shells at longer range than your ships; therefore, you want to close with the *Nachi* as quickly as possible. Sail head-on toward the enemy ship to make it tougher to hit you.

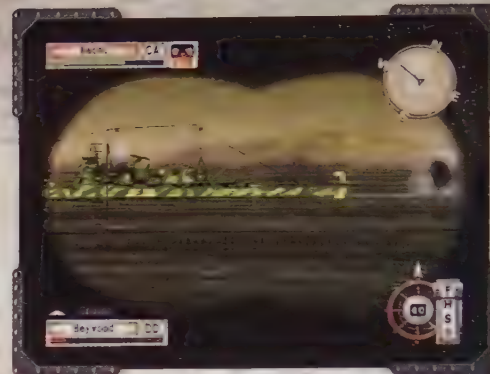
You take a lot of damage while engaging the *Nachi*, so quickly visit the Damage screen to assign crew to repairs.



Tip

You commanded the *Nachi* in the previous challenge mission. Remember that all of its turrets are located in the front. If you can get a ship in the rear arc of the cruiser, it can't fire at you. As you pass by the cruiser, make a tight turn and try to fall in behind it.

As you get within about a half nautical mile, launch torpedoes from all your destroyers. Fire them in a wide spread in front of the cruiser to increase your chance of a hit. Save a few torpedoes on your flagship and the second Fletcher-class destroyer for when you get in even closer. Torpedoes will cause a lot more damage to the *Nachi* than your guns. However, you can try to aim for the ship's rear to take out the ship's engines. If you can slow it down or stop the cruiser dead in the water, it is a sitting duck for torpedoes. Keep up the attack with all your destroyers firing on the enemy ship until it sinks beneath the waves.



Aim so your shells hit the *Nachi*'s rear and hopefully knock out its engines.



The Challenge Missions: Ship Challenges

Might of the Yamato

Background

19 July 1942

In the aftermath of Midway, take the helm of Admiral Yamamoto's flagship, the awesome *Yamato*. Take on the might of the U.S. carrier forces with the power of the world's largest battleship.

Tactical Map



Objectives

Primary Objectives

- Locate the carrier group to the north before they escape
- Destroy the *Hornet* and the *Enterprise* before they escape
- The *Yamato* must survive

Order of Battle

Class	Type	Number
BB	Yamato-class battleship	1
CL	Kuma-class light cruiser	1
DD	Fubuki-class destroyer	2

Mission Walkthrough

Fight Through to the Carriers

The *Yamato* is the most powerful battleship ever built. Armed with 18" guns, she can sink anything afloat and can take a lot of damage. Your battleship group also includes a cruiser and two destroyers, which serve as escorts. Your targets are the two American carriers to the north. They are headed toward the northern map edge; you must catch up to them and sink them before they can escape. Set a course due north at full speed ahead.



The *Yamato* combines massive firepower with heavy armor. It is truly a weapon of mass destruction.



Note

In this mission, there are no secondary or hidden objectives. All you have to do is sink the two carriers before the Americans can sink the *Yamato*.



Sink the USS *Houston*, the cruiser leading the screening force.



The destroyers are merely pests after they fire their torpedoes. However, they can harm your escorts, so quickly sink them.

The Americans throw a lot of defenses at you. At the start, there is a screening force directly to the north and headed your way. A cruiser leads a group of four destroyers that will all launch torpedoes at the *Yamato* once it is in range. Target the nearest ship and begin firing on it. Don't turn so you can fire a broadside. Catching up to the carriers is still the most important task. Besides, a single hit from one of your 18" guns will sink a destroyer, and a few hits will sink the cruiser as well. As the ships get closer, your secondary guns will also fire at your targets.



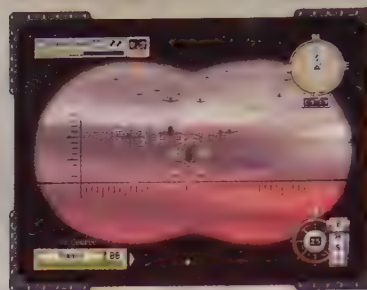
The American destroyers launch a broad spread of torpedoes toward your battleship.

Order your destroyer to break from the formation as soon as you detect an enemy sub. Destroy the submarine before it can damage the *Yamato* with its torpedoes.

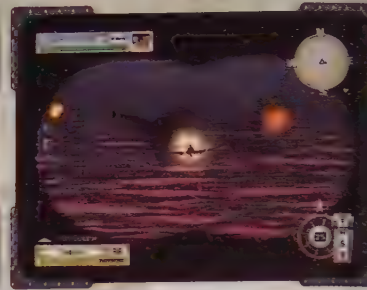


As you continue toward the carriers, you run across a couple of enemy subs, one at a time. Order the closest destroyer to attack the first one. You can even take control of this destroyer and try to sink the sub with depth charges. Keep the other destroyer in formation until you detect the second sub and then send it to attack. Your crew should be able to avoid any torpedoes the subs fire, especially if your destroyers forced them to fire from a distance. After they have sunk the subs, return your destroyers to the formation on either side of the cruiser.

Flattops in the Crosshairs



Enemy bombers inbound. Man the AA guns.



A Devastator disintegrates in midair before it can drop its torpedo.

As you near the carriers, you come under air attack. Your escorts help shoot some of them down with their AA guns—this is why they form a line in front of the *Yamato*. However, switch to AA guns and help shoot down the enemy planes. The Dauntless dive-bombers can start fires on your ship and damage your turrets while the Avenger torpedo bombers will cause flooding if their torpedoes hit. Since it is difficult to avoid aerial torpedoes dropped in close, your best defense is to shoot down the bombers before they can release their ordnance.



Too many torpedo hits will eventually sink the *Yamato*, so take out those carriers.



The *Hornet* takes several direct hits and begins to list. A few more shots and it goes down.

The waves of air attacks continue as long as the carriers are afloat. Therefore, keep pressing on after the carriers. Three cruisers escort the *Enterprise* and *Hornet*. If one turns around to engage you, sink it. As soon as one of the carriers is in range, begin firing at it. The carriers will be running away, so you don't have to lead them. Aim at the flight deck, and your shells should drop right on it. As you close to within 1.5 nm, you can begin to turn a bit to bring more guns to bear. Don't worry about the cruisers. You need to sink those two carriers to complete the mission before their bombers sink the *Yamato*.

The Challenge Missions: Submarine Challenges



The *Enterprise* joins her sister at the bottom of the Pacific.



Tip

Carriers can repair fairly quickly, so keep firing at one until you sink it, then turn your guns on the second carrier and repeat the destruction.

The Challenge Missions: Submarine Challenges

Crucial Cargo

Background

12 January 1942

Attack a Japanese merchant convoy with the USS *Nautilus*, the latest addition to the U.S. submarine fleet. Plan your attack carefully.

Tactical Map



Objectives

Primary Objectives

Identify and report the two important cargo ships
The destruction of these two cargo ships is crucial

Hidden Objectives

Destroy the convoy's warship escort
Sink all cargo ships in the area

Order of Battle

Class	Type	Number
SS	Narwhal-class submarine	1



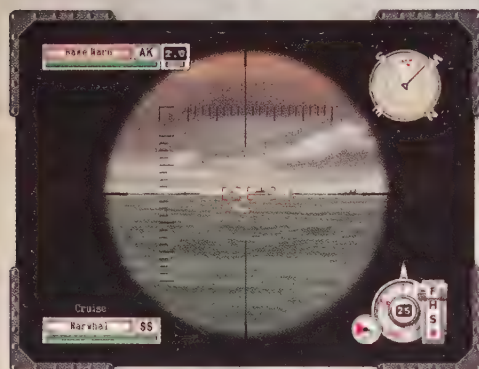
Mission Walkthrough

Eliminate the Escorts

Since you don't get to use submarines much during the campaign, this mission is really your first chance to focus on underwater warfare. Your mission is to first identify a couple of cargo ships and then sink them. However, to accomplish both hidden objectives, you must sink all the ships in the convoy, including the escorts. This convoy consists of a cruiser, a light cruiser, two destroyers, and 12 cargo ships and tankers—16 ships total. There are also a couple PT boats that patrol around the convoy.

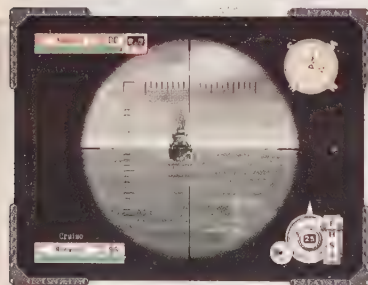


You are the captain of the USS Nautilus.



Use the periscope to identify the cargo ships on the surface.

ify them. You are looking for the *Kinjosan Maru* and the *Taijan Maru*. After you identify these ships, a gold objective bracket appears around them so you know they are your targets for this mission.



Fire off four torpedoes at the first destroyer while sailing head-on.



Turn and launch your rear torpedoes if you don't sink the destroyer with your first shots.

While you can just go in after the cargo ships and sink them to complete the mission, consider dealing with the destroyers, which are your main threat. After you sink both, the enemy convoy can't detect your submerged sub.

The first destroyer comes after you immediately. Turn your ship to port and line up so that you are on a collision course with the destroyer. Use your periscope to line up your shots. At about 0.4 nm, fire a spread of four torpedoes—one a bit to each side, and two toward the destroyer's center. It doesn't have time to turn to avoid them, and at least one torp should hit.

As soon as you fire, lower the periscope and turn to starboard; if you miss, you can set up a shot with your rear torpedo tubes as the destroyer passes by. It is important to sink this first destroyer as quickly as possible since another will be moving up from the convoy's rear to intercept your sub.



When the other destroyer approaches, hide underneath a cargo ship where it can't follow. Just be sure to dive to depth level 3 or you will lose your periscope.



Approach the cruiser from the rear and to one side. Get four hits and it goes under.

Keep turning to the north and go after the cruiser leading the convoy. It is your main threat if you have to surface, so take it down. If the other sub comes at you, dive to depth level 3 and sail under one of the cargo ships. The destroyer can't drop depth charges on you while you are near the cargo ship and will be forced to pull back. This allows you to make a run at the cruiser. Approach from the rear, off to one side, and get within 0.2 nm before launching torpedoes. Aim toward the ship's front half. Fire off a couple torpedoes to check your aim and see which way the cruiser will turn to avoid the weapon. This allows you to correct your next two shots if necessary. Four torpedo hits sink the cruiser.

The Challenge Missions: Submarine Challenges

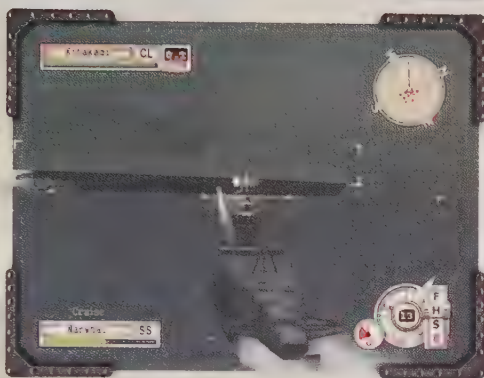
Tip

If a destroyer gets in close to you, dive to depth level 3 and try to hide under other ships. You can't outrun these destroyers, so you need to outmaneuver them. If necessary, dive to depth level 4; as soon as your tactical map goes blank, make a sharp turn. The destroyer can't harm or even detect you at this depth; however, you will take damage from the pressure. After a bit, rise to depth level 3 to see the locations of enemy ships. Try to get underneath one as you set up an attack on the destroyer.

By this time, you will need to surface for some air. Go to the surface and be ready to fire the torpedoes loaded in your rear tubes at the destroyer following you. Stay only a few seconds on the surface and then dive back down. Hopefully you hit the destroyer.

However, if you didn't go back toward the cargo ships for cover, your next target is the light cruiser, which is usually along the convoy's left side. This time you will be approaching from the side. Wait until you are in close and then fire off a couple torpedoes, followed by two more. It takes four torps to sink the light cruiser.

Now all that remains is to finish off the last escort—the second destroyer—unless you have already sunk it. Use the same tactics as before. Aim your tubes, either fore or aft, at the destroyer, and are from at least 0.2 nm away so the torps have time to rise to the surface. Stay near the merchant ships so you can duck under them to get away. Keep this up until you sink the destroyer and have only the cargo ships to deal with.



The light cruiser is your next target.



Sink the last destroyer to completely eliminate all the convoy's escorts.

Note

Watch your air gauge. When it reaches zero, your sub automatically surfaces. It is better to surface on your own when you are away from the enemy. Don't stay up long—not even until your air tanks are full. Quickly dive down before you take too much damage from enemy artillery.

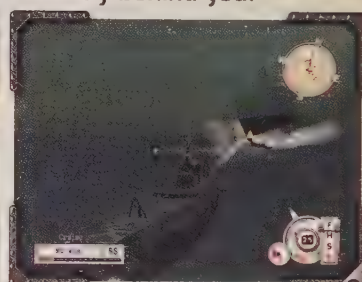


Sink the Cargo Ships

Since the mission ends after you sink both of your objective ships, save one of them for last. It takes a couple torpedoes each to sink cargo ships, but you don't have enough torpedoes left to sink them all. However, you do have a deck gun. It is located forward of your sub's conning tower and can fire through a large arc at just about anything except targets directly behind you.



After you sink the warships, surface to use your deck gun to sink cargo ships.



Sink the objective ships to complete the mission.

In order to use your deck gun, you must first surface. The cargo ships are armed with AA guns, so don't get in too close. Stay at least 0.5 nm away and begin firing your artillery. You have only one shot at a time, so aim for the front or rear; this causes the most damage by hitting the holds. Also dive down and use your torpedoes until you run out. As before, get in close for torpedo attacks so you don't miss and waste a torp. After sinking all the nonobjective ships, go after the two cargo ships. You have orders to sink them to complete the mission.



Periscopes Threatening

Background

17 February 1942

Attack the retreating Allied forces with a Japanese submarine. Prepare for heavy resistance from escorting destroyers.

Tactical Map



Objectives

Primary Objectives

Destroy the entire retreating fleet

Order of Battle

Class	Type	Number
SS	Type B-class submarine	1

Mission Walkthrough

Sink the Fleet

This mission is similar to the previous one if you went after the hidden objectives and sunk all the warships. This time there are no cargo ships. You must eliminate an Allied fleet consisting of a New York-class battleship, a York-class cruiser, a Fletcher-class destroyer, and two Clemson-class destroyers. The enemy fleet begins to the west of your starting location and is sailing in a northeastern direction.



This Allied fleet of five ships is your target.



Submerge before the enemy starts firing on your sub.



The classic head-on torpedo shot—perfect for sinking an enemy destroyer.

Your sub begins on the surface; however, don't stay there long. The enemy ships will begin to fire on you. Take her down to periscope depth and then raise the periscope to scout out the situation. One of the destroyers will be sent to sink you. Sink it first.

Set a course directly toward the Allied destroyer. Line it up in your sights, and then fire three or four torpedoes in a narrow spread when you are within about 0.3 nm of it. Quickly lower your periscope and turn to starboard; be ready to follow up with torpedoes from your aft tubes if necessary. It is important to sink one of the destroyers as quickly as possible because you still have two more you must eliminate.



The Challenge Missions: Submarine Challenges



The other destroyers come after you. Don't approach them, because you may run into their depth charges. Instead, let them chase you and engage them with your aft torpedo tubes.

By this time, the other two destroyers will be coming after you. The cruiser and battleship continue on their way. What you go after next depends on how close the destroyers are to your submarine. A good tactic is usually to close in on the battleship. This forces the destroyers to follow you and possibly sets up a shot with your aft torpedoes. Since the destroyers must chase you at full speed, turn so that your stern is pointed at the oncoming destroyer. Launch your two torpedoes in a narrow spread of about 0.3 nm. At least one should hit. This tactic seems to work best for going after destroyers—especially since the American destroyers take a while to catch up to you. This gives you a great opportunity for an attack that the destroyers will have trouble avoiding.

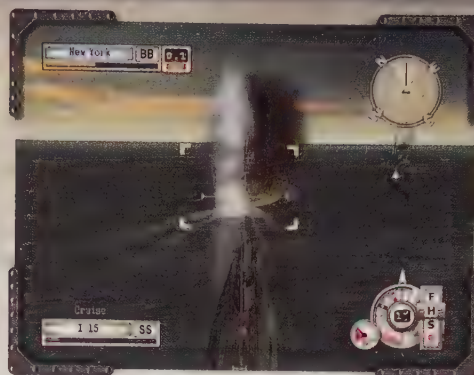


While you can use your periscope when in close, you really don't need it.



Instead, you can see the surface ships' hulls; use them for aiming your shots. Approach the battleship from behind, lining up your sub so the torpedoes don't have to turn after launching.

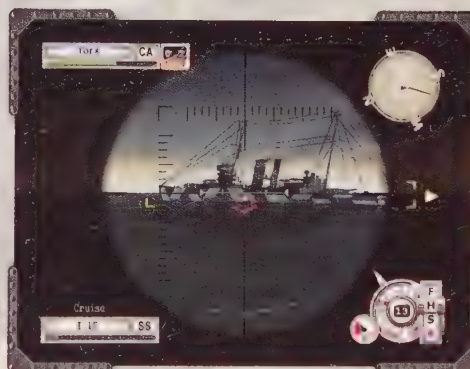
As a submarine skipper, you will have to multitask. Though you are running from the destroyers, you are also sailing toward the battleship to attack it. Come in from the side or rear and get within 0.2 nm before firing. Launch a couple torpedoes, and then launch two more after you see if the first torps hit. It takes six to eight hits on the battleship to sink it. You want to bring it down before you run out of air and have to surface. The battleship can sink your sub with just a hit or two from its main guns.



Don't let your sub surface right next to the battleship. Your mission will come to a quick end.



Not running out of air is this mission's main challenge. There are only warships in this mission, so you can hide behind a cargo ship while you surface to restore your air supply. When you start getting low on air, set a course away from both the battleship (if it is still floating) and the cruiser, and then surface on your own. As soon as you come up, give the order to dive back down. Though you will not fill your air tanks, you will also not expose yourself as much. If necessary, repeat the process with another quick surface and dive.



It doesn't take as many hits to sink the cruiser as it does the battleship.

It takes four hits to bring this warship down. Finally, finish off any remaining destroyers and victory is yours.

The cruiser is your next target. If one or more destroyers are still active, let them chase you and take rear torpedo shots at them as you move in for a run against the cruiser. Get in really close and fire a spread of torpedoes at the enemy ship. It

It is a bit safer to surface after you destroy the battleship and cruiser. However, keep your surface visits brief. The destroyer's guns can still cause a lot of damage.



Coup de Grace

Background

27 May 1942

We have located the USS *Enterprise* in the Philippines making preparations to sail to Midway. Command a submarine strike force to sink her, but beware—she is heavily defended.

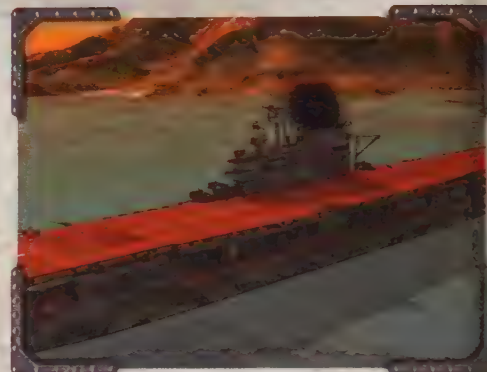
Tactical Map



Mission Walkthrough

The Approach

This mission is tough, so don't be discouraged if you can't complete all the objectives in the first few tries. You have been given command of a pair of Type B submarines—the I-25 and the I-26—which begin in the north-west and south-west, respectively.



The USS *Enterprise* is your main target for this mission. Sink the flattop.

While your main objective is the carrier USS *Enterprise*, the light cruiser USS *Denver* and the destroyer USS *DeHaven* are also objectives. In addition to these three ships, you must also deal with another destroyer, PT boats, a Catalina recon plane, and squadrons of Avengers—all of which carry depth charges.

Objectives

Primary Objectives

Destroy the USS *Enterprise*

Hidden Objectives

Sink the *DeHaven*

Secondary Objectives

Destroy the enemy cruiser

Order of Battle

Class	Type	Number
SS	Type B-class submarine	2



Note

The PT boats are especially troublesome during this mission. They can drop lots of depth charges on you unless you are at depth level 4, and you can't damage them with torpedoes. Therefore, you must surface to eliminate these pests. However, on the surface, you are exposed to artillery fire from enemy destroyers, so you must sink the destroyers before surfacing to engage the PT boats. If that is not possible, dive to depth level 4 and get away so you can try this tactic again.



Send the I-26 down to depth level 4 to avoid air attacks.

The Challenge Missions: Submarine Challenges

At the start, you must get your submarines moving. Order the I-25 to full speed ahead and surface. Keep the I-26 at periscope depth and throttle it up to full speed. Raise I-26's periscope and go to the tactical map. There you see a destroyer to the east of I-25 and a Catalina and some Avengers headed out to the I-26. Order the I-26 to dive to depth level 4 and set a course toward the *Enterprise*.



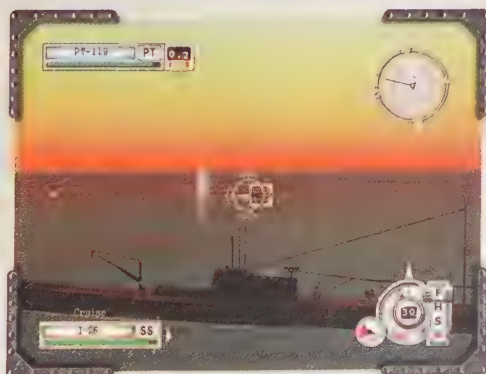
Sink the USS *Gilmer* at the mission's start to eliminate one of the two destroyers. Fire your forward torpedo tubes head-on, then make a sharp turn to use your rear tubes if necessary.

Now take control of I-25. Set a course for the destroyer, the USS *Gilmer*. When you are about 1.0 nm away from the ship, dive to periscope depth and raise your periscope. Point your sub directly at the oncoming destroyer and fire a narrow spread of four torpedoes when the destroyer gets within 0.4 nm. Lower your periscope and make a sharp turn to port to be ready to fire your aft torpedoes if at least two of the first volleys fail to hit. Sink this destroyer before it can drop any depth charges on you.



The head-on shot at an approaching destroyer is a good skill to develop. This comes in handy in most missions where you use submarines, as well as during multiplayer. You have to launch at just the right distance so the torpedoes have time to reach the surface, take on their bearing, and still be close enough that the enemy ship does not have time to avoid the torpedoes.

Destroy the PT boat while you are on the surface.

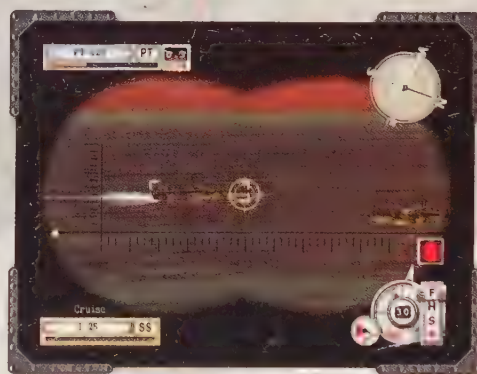


As soon as the *Gilmer* begins to go down, surface and target the nearby PT boat. Use artillery and AA fire to sink it as you dodge its torpedoes, which you have to worry about while on the surface. Keep an eye on the tactical map since some aircraft may be coming to drop depth charges on you; these act just like bombs while you are on the surface. As soon as they approach, dive to depth level 4 and head toward the *Enterprise*.



Sink the cruiser with four torpedo hits to its side.

up a shot so that you can fire four torpedoes right into the cruiser's side from about 0.2 nm away. Aim toward the bow and they should all hit, sending the cruiser to the bottom. After launching the torps, turn away just in case you need to fire your aft torpedoes.



Sink some more PT boats.

Use the same tactics as before with artillery and AA guns while dodging torpedoes. When you are done, set a course to the north. You can stay on the surface for now unless there are any aircraft that pose a threat.

Now switch back to I-26 and order her to rise to periscope depth so she doesn't take more damage from the increased water pressure at depth level 4. By this time, you should detect the light cruiser USS *Denver* on your sonar. Turn to engage and line

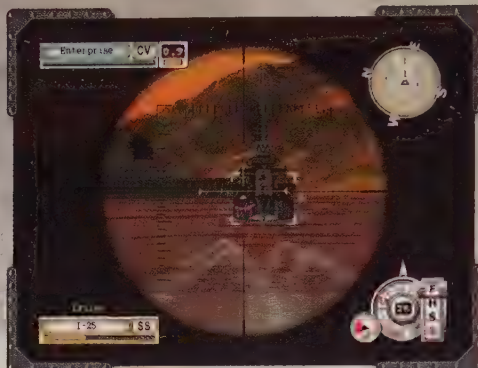
Wait to surface until after the cruiser sinks. If you surface too soon, even after four hits, the cruiser's guns may still be active and can sink you.

Once on the surface, you must recharge your air supply and sink a nearby PT boat.

Sinking the *Enterprise*

The *Enterprise* is protected by one remaining PT boat and the Fletcher-class destroyer, the USS *DeHaven*. Keep I-25 at depth level 4 somewhere to the northwest of the *Enterprise* while I-26 takes care of the escorts.

Close on the *DeHaven* and it usually sails to engage you. When it is about 1.0 nm distance, dive to periscope depth and then raise your periscope. As the *DeHaven* reaches 0.4 nm, use the head-on attack you performed against the previous destroyer—launch a narrow spread of four torpedoes and then make a sharp turn to port to use your aft torpedoes if necessary.



Torpedo the *DeHaven* to complete a hidden objective.



Note

The *Enterprise* may try to launch squadrons of Avengers with depth charges. If this happens, you can try to shoot them down or dive to depth level 3 to minimize the damage.



Fire torpedoes from the surface while attacking the *Enterprise*.



Use your deck gun to help sink the carrier quicker.

Once the *DeHaven* sinks, surface and engage the last PT boat as you close on the *Enterprise* at full speed. The carrier begins to sail toward the north in an effort to escape. If it gets to the map edge, the mission ends in failure.

While I-26 is chasing the *Enterprise*, I-25 should be in position to intercept the carrier. Surface and begin launching torpedoes at the carrier. While your tubes reload, use your deck gun to fire artillery shells at the carrier. Keep hammering away with artillery and more torpedoes (once they are reloaded) until the *Enterprise* goes under and the mission is complete.



Multiplayer

Multiplayer

Battlestations: *Midway* offers nine different battles for multiplayer games. Each can be played by up to eight players divided into two teams—Allied and Japanese. Depending on the battle, you may control a single fighter or a group of ships, including battleships or aircraft carriers and their complement of aircraft. Airfields and shipyards also play roles in these battles. This chapter provides some general strategies and tactics to use for multiplayer missions, and contains maps, objectives, orders of battle, and specific strategies for each of the individual multiplayer battles.



The multiplayer battles let you take on other players and send them to the bottom of the ocean.

General Strategy and Tactics

Focus on the Objectives

In each mission, there are specific objectives that you must complete in order to win. Many missions require your team to destroy certain units, such as specific ships or ground bases, while protecting your own units. Therefore, while you must go on the offensive to win, you must also protect your own units. It is easy to get caught up in trying to destroy every enemy unit. However, if a target is not one of your objectives, focus on just those units you need to destroy in order to win, as well as those that threaten your units.

Communications

When playing with other players on a team, it is important to communicate with them. For the Xbox 360 version of the game, you can easily talk to your teammates on Xbox using the headset. For the PC game, you can type messages to your teammates or use a VoIP (Voice-over IP) program in order to keep in touch.

Coordination

When you have your communication down, it is vital to coordinate your efforts. It is usually good to split up the tasks. For example, some players can defend your key units while other players focus on attacking enemy units. If you have two players, each with a carrier, one player can protect all fighters in order to protect the two carriers and escort the bombers launched by the other player.

You can also give units to other players. This works well for players with an aircraft carrier and a destroyer. You can give the destroyer to another player to use to hunt down submarines while you concentrate on launching aircraft and controlling them to strike at the enemy.

Controlling Your Units



Take direct control of your battleship in order to make sure more of your shells fall on target.



It is also a good idea to fly your bombers during their attack runs whether you are dive-bombing or dropping torpedoes.

Use your artillery to attack enemy units as well as bombers during their attack runs. In both cases, you can usually get more hits since you can lead the targets better than your crew. Submarines also work best under your direct control.

However, so you don't have to worry about your sub while sending it to its destination, order it to depth level 4. Enemy destroyers can't detect it there. When your submarine is near an enemy carrier or battleship, take direct control to bring it up to periscope depth so you can launch your torpedoes at your target.



Note

After a ship has been sunk during a multiplayer game, you can't bring it back. You can only take control of other units not controlled by other players on your team. If you have control of a shipyard, once the units it has launched have been destroyed, you can launch more units as long as you have some remaining at this base. In some missions, shipyards can launch larger ships, including destroyers and even battleships.

The Missions

Air Superiority at Luzon

Tactical Map



Objectives

American Objectives

Escort our B-17 bomber squadrons to take out the airfield

Japanese Objectives

Defend our airfield from incoming waves of B-17 bombers

Order of Battle

Player Slot #	Class	Type	Number
1 Allied	Plane	F4F Wildcat fighter	1
2 Allied	Plane	F4F Wildcat fighter	1
3 Allied	Plane	F4F Wildcat fighter	1
4 Allied	Plane	F4F Wildcat fighter	1
5 Japanese	Plane	A6M Zero fighter	1
6 Japanese	Plane	A6M Zero fighter	1
7 Japanese	Plane	A6M Zero fighter	1
8 Japanese	Plane	A6M Zero fighter	1

American Strategy

The American strategy is fairly simple—shoot down the Japanese Zeroes before they can shoot down all your B-17 bombers. While you can't directly control the B-17s, you can escort them in Wildcat fighters. The B-17s have their own defensive machine guns, so they can protect themselves against a few enemy fighters. However, try to thin them out before they get in close to the bombers. Attempt to get on the enemy fighters' tails as they move in to attack the bombers since they will usually fly straight and slower in order to engage the bombers.

Japanese Strategy

While the bombers are your main target, the American fighters cause you some serious problems if you ignore them. Therefore, go after the enemy fighters first. The Zero is more maneuverable and has some good firepower. Another tactic is to split up: have half the Japanese team go after the fighters and the other half take on the bombers.

Multiplayer

The Japanese do not have an unlimited amount of time. They must shoot down the bombers before they can bomb the airfield. Therefore, as the bombers get about halfway from their starting position to the airfield, you must turn your attention on them. Just be sure to keep your plane moving so you are not an easy target for the enemy fighters. Also be sure to target the engines on the B-17s, which are located in the wings and are the most vulnerable spot. A few hits to the engines will destroy a bomber. Try diving on them from a higher altitude to get a good shot on the engines.

Battle of Vella Gulf

Practical Map



Objectives

American Objectives

Destroy the Japanese shipyards

One of the Allied key units must survive the battle

Japanese Objectives

Destroy the Allied shipyards

One of the Japanese key units must survive the battle

Order of Battle			
Player Slot #	Class	Type	Number
1 Allied	CL	Cleveland-class light cruiser	1
	PT	Elco PT boat	2
2 Allied	CL	Cleveland-class light cruiser	1
	PT	Elco PT boat	2
3 Allied	Base	Shipyard	1
	CA	York-class cruiser	1
	PT	Elco PT boat	2
4 Allied	Base	Shipyard	1
	CA	York-class cruiser	1
	PT	Elco PT boat	2
5 Japanese	CA	Tone-class cruiser	1
	PT	Japanese PT boat	2
6 Japanese	CL	Kuma-class cruiser	2
	PT	Japanese PT boat	2
7 Japanese	Base	Shipyard	1
	PT	Japanese PT boat	2
8 Japanese	Base	Shipyard	1
	PT	Japanese PT boat	2

American Strategy

The Americans' objective is to destroy the two Japanese shipyards while defending the two U.S. shipyards. To accomplish this, each player has a cruiser and two PT boats. Two players also control the shipyards, which allows them to spawn destroyers. These players should use this option and then attach their destroyers to their cruisers to form a group.

While the shipyards are the objective, it is important to first sink the enemy cruisers and PT boats before they can sink your ships or damage your shipyards. Since the map contains several small islands with narrow straits between them, your PT boats and destroyers can set up ambushes: They can fire spreads of torpedoes at Japanese ships trying to sail through them since the enemy has little maneuvering room in these straits.

Since the PT boats are faster, take control of them to begin with and give orders to your cruisers to move forward while you try to get some early hits on the enemy. A good tactic is for all American players to use their PT boats against a single enemy cruiser at the same time. This will overwhelm the cruiser's defenses and allow at least a couple PT boats to get in and fire their torpedoes at close range.

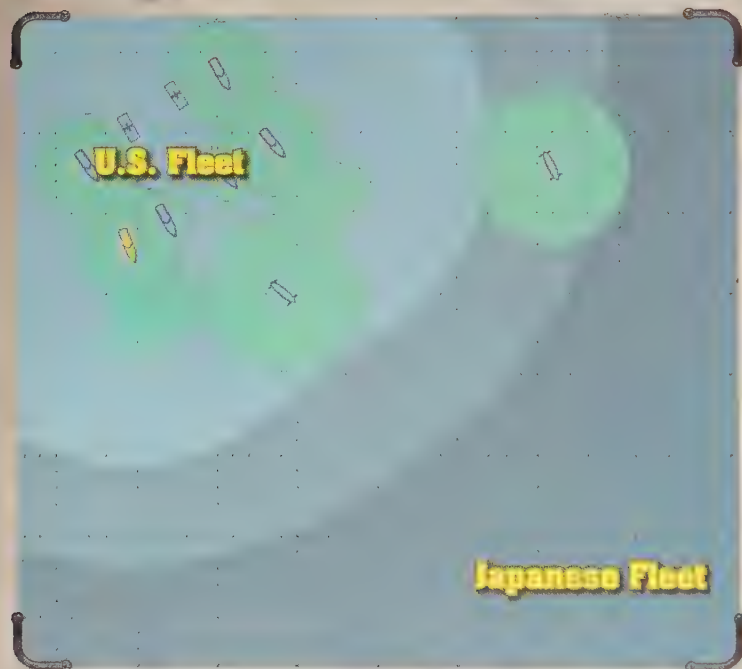
Japanese Strategy

The Japanese strategy is basically the same as the American. However, all the Japanese cruisers carry torpedoes while only two of the U.S. cruisers are armed with them. Unfortunately, the players with the shipyards do not have cruisers. Use torpedoes in the narrow straits to inflict as much damage on the enemy ships as possible. A strategy that sometimes works is to send the destroyers from the shipyards around the islands, avoiding the narrow straits, to hit the American shipyards from the south.

Remember that your destroyers are expendable. You can launch more from the shipyards once the current destroyers are sunk. Also, shipyards can't be repaired, so any damage you cause is permanent. Focus on one of the shipyards until it is destroyed before attacking the second. This will reduce the Americans' ability to send out as many destroyers, and give you a bit of an advantage.

Battle of the Coral Sea

Tactical Map



Objectives

American Objectives

Find and destroy the Japanese carriers

One of the American key units must survive the battle

Japanese Objectives

Find and destroy the American carriers

One of the Japanese key units must survive the battle

Order of Battle

Player	Slot #	Class	Type	Number
1 Allied		CV	Lexington-class aircraft carrier	1
		DD	Fletcher-class destroyer	1
2 Allied		CV	Yorktown-class aircraft carrier	1
		DD	Fletcher-class destroyer	1
3 Allied		DD	Fletcher-class destroyer	1
		CL	Atlanta-class light cruiser	1
		SS	Narwhal-class submarine	1
4 Allied		DD	Fletcher-class destroyer	1
		CA	Northampton-class cruiser	1
		SS	Narwhal-class submarine	1
5 Japanese		CV	Soryu-class aircraft carrier	1
		DD	Fubuki-class destroyer	1
6 Japanese		CV	Hiryu-class aircraft carrier	1
		DD	Fubuki-class destroyer	1
7 Japanese		CL	Kuma-class light cruiser	1
		DD	Fubuki-class destroyer	1
		SS	Type B-class submarine	1
8 Japanese		CA	Takao-class cruiser	1
		DD	Fubuki-class destroyer	1
		SS	Type B-class submarine	1

American Strategy

This mission's objective is to sink the enemy carriers while keeping at least one of your carriers afloat. Therefore, the best tactic is to keep your carriers along either the northern or western map edges while you send your cruisers and subs after the enemy carriers. The players in control of the carriers also control the U.S. airpower. Keep fighters in close on combat air patrol (CAP) to shoot down any incoming enemy bombers. A good tactic is to have one of the players launch only fighter squadrons. Keep two back to cover the fleet while the third goes out to locate enemy bombers and shoot them down at a distance, or to escort the U.S. bombers to their target. Since dive-bombers work best against carriers, the other carrier player should launch three squadrons of dive-bombers and keep them together as they go in after one of the enemy carriers. By sinking one, you will cut the enemy airpower in half—making it easier to take out the second carrier.

Japanese Strategy

Since the Japanese have the same order of battle and objectives as the Americans, they can use the same strategies. While airpower is important, don't forget to use your two submarines. Since your team has planes in the air, you can send your subs down to depth level 4 to approach the enemy while avoiding detection. If you are confident in your submarine abilities, go after the destroyers first—or have your carrier teammates sink the destroyers with their dive-bombers.

If you can take out the enemy's destroyers, they are blind to your subs and you can stay at periscope depth. Coordinate the efforts of the two subs to attack the same carrier. Six torpedo hits will quickly send it to the bottom. Then go after the other carrier. It is also important to locate and sink the American subs so they can't do the same thing to you. In addition to using your destroyers, your torpedo bombers can also be loaded with depth charges used for sinking subs.

Battle of the Philippines

Tactical Map



Objectives

American Objectives

Destroy the enemy carrier and airfield
One of the American key units must survive the battle

Japanese Objectives

Sink the enemy carriers
One of the Japanese key units must survive the battle

Order of Battle

Player Slot #	Class	Type	Number
1 Allied	CV	Yorktown-class aircraft carrier	1
2 Allied	CV	Yorktown-class aircraft carrier	1
3 Allied	DD	Fletcher-class destroyer	2
4 Allied	DD	Fletcher-class destroyer	2
	SS	Narwhal-class submarine	1
5 Japanese	Base	Airfield	1
6 Japanese	CV	Soryu-class aircraft carrier	1
7 Japanese	DD	Fubuki-class destroyer	2
8 Japanese	DD	Fubuki-class destroyer	2
	SS	Type B-class submarine	1

American Strategy

The Americans must sink a carrier and destroy an airfield in order to win this mission. Luckily, both are located rather close to each other. At the same time, you must also defend your carriers. Send both toward the southwest corner where you can more easily defend them. Keep your destroyers nearby since the enemy has a submarine and you need these ships to detect and sink it. While keeping some fighters to cover your carriers, send dive-bombers to take out the enemy carrier, which is located at the beginning of the mission on the southwest shore of the main island. It is easier to take the carrier out at the beginning when you know where it is located, rather than later in the mission when the enemy has moved it and you have to hunt it down. The other objective—the airfield—won't be going anywhere. Sinking the carrier also cuts the enemy airpower in half, allowing you to have air superiority as long as you can keep both of your carriers afloat. Finally, use dive-bombers to destroy the airfield to complete your objectives.

Japanese Strategy

The Japanese are at a slight disadvantage initially since they have an airfield that can't be moved. However, it can't be sunk by the U.S. submarine either. The U.S. forces are divided into two groups—one to the west and the other to the south. This initially prevents the enemy from combining their fighters into a single combat air patrol and allows the Japanese to send a force to attack one—preferably the southern carrier group. Use dive-bombers to sink the carriers.

As soon as you order your planes to launch, send your carrier to the map's northeast corner, making it more difficult for the enemy to hit. Order it to move past the airfield so initially you can use a couple fighter squadrons to protect both the carrier and airfield while they are near each other. Keep a couple destroyers near the carrier to watch out for the U.S. submarine. Also send your other destroyers to either engage the enemy destroyers to the west and clear a way for your submarine, or to the south to search out and sink the U.S. submarine. After you sink one of the carriers, you can then concentrate on the other carrier. Don't worry about sinking the destroyers with your bombers. Instead, go for the quick win and send in a concentrated force of dive-bombers with some fighter cover to sink the second carrier and win the mission.

Battle of Samar

Tactical Map



Objectives

American Objectives

Destroy the *Yamato*, the Japanese flagship

One of the American key units must survive the battle

Japanese Objectives

Destroy the American carriers

The *Yamato* must survive the battle

Order of Battle

Player	Slot #	Class	Type	Number
1	Allied	CV	Yorktown-class aircraft carrier	1
		DD	Fletcher-class destroyer	1
2	Allied	CV	Yorktown-class aircraft carrier	1
		DD	Fletcher-class destroyer	1
3	Allied	DD	Fletcher-class destroyer	1
		BB	New York-class battleship	1
4	Allied	DD	Fletcher-class destroyer	1
		BB	New York-class battleship	1
5	Japanese	BB	Yamato-class battleship	1
		DD	Fubuki-class destroyer	1
6	Japanese	DD	Fubuki-class destroyer	1
		CV	Akagi-class aircraft carrier	1
7	Japanese	DD	Fubuki-class destroyer	1
		CA	Takao-class cruiser	1
8	Japanese	DD	Fubuki-class destroyer	1
		CA	Takao-class cruiser	1

American Strategy

This is a very interesting battle. The United States has two carriers and two battleships. However, your battleships are not much of a match for the *Yamato*. Sinking this massive battleship is your objective, and you must keep at least one of your carriers afloat in order to win. The *Yamato* is guarded by a fleet that includes a carrier. Therefore, your first target is the enemy carrier. Immediately send in dive-bomber squadrons escorted by fighters to sink the carrier.

Meanwhile, send your carriers to the north and east—away from the *Yamato*—while your battleships and all your destroyers move in toward the *Yamato*. Once in range, try to launch torpedoes at the Japanese battleship and sink its escorting cruisers and destroyers with your cruisers. After your bombers have sunk the carrier and your fighters have shot down all the enemy fighters, land your squadrons and send in torpedo bombers to sink the *Yamato*. With six squadrons of these bombers hitting about the same time, you should be able to sink this battleship fairly easily.

Japanese Strategy

Your objective is to sink the two U.S. carriers. They begin to the north and east of your position. Your best weapon for taking them out is the *Yamato*. Therefore, send it either north or east to advance on one of the enemy fleets. You have one carrier, which you should use to protect itself and the *Yamato*. Launch only fighter squadrons and order them to engage any enemy planes that are headed toward your fleet.

Each U.S. fleet consists of a carrier, a battleship, and two destroyers. By keeping your force together, you can concentrate your force and have local superiority, sinking one fleet and then moving to engage the second fleet in turn. Use the *Yamato*'s superior range to attack the enemy battleships before they can fire at your fleet. These battleships can sink your carrier, so keep your carrier away from them by keeping it near one of the map edges.

Battle of Suriagao Strait

Tactical Map



Objectives

American Objectives

Destroy the Japanese battleships

One of the key Allied units must survive

Japanese Objectives

Break through the enemy force to reach the Leyte Gulf

One of the Japanese key units must survive the battle

Order of Battle

Player Slot #	Class	Type	Number
1 Allied	CL	Atlanta-class light cruiser	1
	Base	Airfield	1
2 Allied	CL	Atlanta-class light cruiser	1
	Base	Shipyard	2
3 Allied	DD	Fletcher-class destroyer	2
	BB	Renown-class battleship	1
4 Allied	DD	Fletcher-class destroyer	2
	BB	Renown-class battleship	1
5 Japanese	DD	Fubuki-class destroyer	1
	BB	Fuso-class battleship	1
6 Japanese	DD	Fubuki-class destroyer	1
	BB	Fuso-class battleship	1
7 Japanese	DD	Fubuki-class destroyer	1
	CA	Mogami-class cruiser	1
8 Japanese	DD	Fubuki-class destroyer	1
	CA	Mogami-class cruiser	1

American Strategy

As the Americans, you must sink the two battleships to complete this mission while also preventing the enemy from sailing through the strait to reach the western map edge. To accomplish this, you have a couple battleships, a couple cruisers, destroyers, PT boats from your shipyards, and an airfield. The enemy has no airpower, so immediately launch dive-bombers to attack the enemy destroyers. After you sink them, order dive-bombers to go after the battleships.

Meanwhile, launch PT boats from your shipyards and send them after the battleships as well. As your last line of defense, keep your battleships and cruisers to the strait's west while sending your destroyers and your PT boats to use their torpedoes. Hopefully your planes will have sunk several of the enemy ships and your ships from the north damaged the battleships and cruisers by the time they reach the strait. Then use your battleships and cruisers to finish them off.

Japanese Strategy

The best strategy for the Japanese team is to move as quickly as possible toward the strait. To cover the main directions from which you will be attacked, position a couple destroyers to the north and the other two to the west. You have no airpower, so you must use your AA guns to shoot down enemy planes. Keep your cruisers to the sides of your battleships to make it difficult for enemy torpedo bombers to hit your battleships.

As you approach the strait, order your destroyers to launch torpedoes through the strait at the enemy, who is either on the other side or moving toward you. Also, turn your battleships so they can engage the enemy battleships and cruisers with all their artillery. Remember, speed is important during this mission since the Americans can keep sending planes and PT boats from the airfield and shipyards.

Islands of Solomon

Tactical Map



Objectives

American Objectives

Destroy the Japanese airfields and naval base

One of the Allied key units must survive

Japanese Objectives

Destroy the Allied carriers and naval base

One of the Japanese key units must survive

Order of Battle

Player	Slot #	Class	Type	Number
1	Allied	CV	Yorktown-class aircraft carrier	1
2	Allied	CV	Yorktown-class aircraft carrier	1
3	Allied	Base	Shipyards	1
4	Allied	Base	Shipyards	1
5	Japanese	Base	Airfield	1
6	Japanese	Base	Airfield	1
7	Japanese	Base	Shipyards	1
8	Japanese	Base	Shipyards	1

American Strategy

This mission forces you to destroy four ground bases while protecting two ground bases and two carriers of your own. The U.S. carriers should launch their planes and go after the airfields with dive-bombers first. Keep a couple squadrons of fighters on CAP over your carriers and send one squadron of fighters to escort your dive-bombers. Meanwhile, send your carriers toward your shipyard so your CAP can protect both. The shipyards can launch several types of ships, including battleships and cruisers. Therefore, get them going and send them north to engage what the enemy is sending from their shipyards, and to try to destroy the Japanese shipyards. The sooner you can destroy the enemy airfields, the sooner you can eliminate their airpower and use all your squadrons to dive-bomb and destroy the enemy shipyards to win the mission.

Japanese Strategy

Since the Japanese have only ground bases, they are immobile. You can follow the same strategy as the Americans by attacking their carriers first, but another option is to launch squadrons of fighters to intercept the American bombers as they approach your bases; at the same time, send some dive-bombers to take out the shipyard, which will probably not be heavily defended by CAP. Send the ships from your shipyard to go after the U.S. carriers, and try to sink them before the enemy ships can damage you too much. Once you destroy both carriers and both shipyards, you will be victorious.

Operation MI

Tactical Map



Objectives

American Objectives

- Destroy the Japanese carriers
- One of the Allied key units must survive the battle

Japanese Objectives

- Destroy the Allied carriers
- One of the Japanese key units must survive the battle

Order of Battle

Player Slot #	Class	Type	Number
1 Allied	CV	Yorktown-class aircraft carrier	1
2 Allied	CV	Yorktown-class aircraft carrier	1
3 Allied	CV	Yorktown-class aircraft carrier	1
4 Allied	Base	Airfield	2
	Base	Shipyards	1
5 Japanese	CV	Akagi-class aircraft carrier	1
6 Japanese	CV	Hiryu-class aircraft carrier	1
7 Japanese	CV	Soryu-class aircraft carrier	1
8 Japanese	CV	Hiryu-class aircraft carrier	1

American Strategy

This is primarily an air battle where you must use your airpower to destroy the enemy's carriers. The United States has only three carriers as compared to the four Japanese carriers, so you must destroy more of their forces than they must sink of yours. However, your two airfields and shipyard give you some good advantages.

Your first task is to launch your fighters for CAP. Assign one squadron from each carrier to protect it individually, then launch a couple more squadrons to shoot down enemy planes at a distance from your carriers. One of your airfields has B-17s; launch them and send a fighter squadron to escort it and sink one of the Japanese carriers while sending your carriers to the northeast. The shipyard can launch some recon planes and PT boats, so use it and your second airfield. It is best to launch dive-bombers from your carriers for sinking the enemy carriers. Concentrate on one carrier at a time and sink it before moving on to the next one. Each carrier you sink will limit the Japanese airpower, allowing you to shift more of your squadrons to bombers rather than fighters.

Japanese Strategy

The Japanese have four carriers and can therefore try a bit gutsier strategy than the United States—though they can also use the same strategy with success. Order each of your carriers to launch one squadron of fighters to escort the rest of the squadrons, which consist of dive-bombers. Target only two of the carriers to sink them both in the first wave—cutting the enemy's airpower in half. Meanwhile, order your carriers to scatter. You may lose one or two but can still launch another strike from two carriers to sink the last American carrier.

Steel Monsters

Tactical Map



Objectives

American Objectives

Destroy all enemy ships

One of the key Allied units must survive the battle

Japanese Objectives

Destroy all enemy ships

One of the key Japanese units must survive the battle

Order of Battle

Player Slot #	Class	Type	Number
1 Allied	BB	King George V-class battleship	1
	CA	York-class cruiser	1
2 Allied	BB	New York-class battleship	1
	CL	Cleveland-class light cruiser	1
3 Allied	BB	King George V-class battleship	1
	CL	Atlanta-class light cruiser	1
4 Allied	BB	New York-class battleship	1
	CA	Northampton-class cruiser	1
5 Japanese	BB	Kongo-class battleship	1
	CL	Kuma-class light cruiser	1
6 Japanese	BB	Fuso-class battleship	1
	CA	Takao-class cruiser	1
7 Japanese	BB	Kongo-class battleship	1
	CA	Mogami-class cruiser	1
8 Japanese	BB	Fuso-class battleship	1
	CA	Tone-class cruiser	1

American and Japanese Strategy

This is essentially a team deathmatch with each player in command of a battleship and a cruiser. The U.S. fleet begins to the west of the central island and the Japanese fleet to the east. The only objective is to sink all the enemy's ships while keeping at least one of your battleships afloat.

The only real difference between the two opposing fleets is that all the Japanese cruisers can launch torpedoes while only two of the American cruisers are capable of doing so. The best strategy is to keep your force together. Some teams will split their fleets up into northern and southern groups. However, a team should order all their ships to turn either north or south to form a long line. Adjust formations so the cruisers follow the battleships in a line directly behind. This long line allows all ships to fire broadsides with all their artillery.

Concentrate your fire on only a few ships at a time in order to quickly sink them. As your fleet sails to either the north or south and moves past the enemy fleet, begin turning toward the enemy fleet to flank them. This way your line can maneuver in front of the enemy groups as well as hit them from the side. This allows several of your ships to engage the lead enemy ships at the same time and quickly sink them. After you sink all enemy ships, you are victorious.



Medals and Awards

As you complete the campaign, challenge missions, training missions, and perform well in individual missions, you earn medals. Xbox 360 players also earn gamerscores. The following tables list the various medals and awards you can earn and the requirements for each.

Medals

Name	Type	Description	Requirements
Air Medal	Single player	The Air Medal is awarded to any person who distinguishes himself by meritoriously fighting against enemy air forces.	Kill 20 enemy planes and reach at least 5 minutes plane usage
Distinguished Flying Cross	Single player	The Distinguished Flying Cross is awarded to any person who distinguishes himself by heroism or extraordinary achievement while fighting against enemy air forces.	Kill 40 enemy planes and reach at least 5 minutes plane usage
Medal of Honor	Single player	The Medal of Honor is awarded to a person who conspicuously distinguishes himself by gallantry and intrepidity at the risk of his life above and beyond the call of duty.	Reach the time and hit limits of the Service and Marksmanship medals
Navy Cross	Single player	The Navy Cross may be awarded to any person who, while serving with the Navy or Marine Corps, distinguishes himself in action by extraordinary heroism.	Kill 10 enemy ships and reach at least 5 minutes ship usage
Navy Distinguished Service Medal	Single player	The Navy Distinguished Service Medal is awarded to service members who, while serving in any capacity with the Navy or Marine Corps, distinguish themselves by exceptionally meritorious service.	Kill 5 enemy ships and reach at least 5 minutes ship usage
Bronze Star	Multiplayer	The Bronze Star is awarded to any person who distinguishes himself by heroic or meritorious achievements or service.	Team Kill/Death ratio must be at least 3:1
Distinguished Service Cross	Multiplayer	The Distinguished Service Cross is awarded to a person who has distinguished himself by extraordinary heroism.	Kill 50 enemy planes and 10 enemy ships
Legion of Merit	Multiplayer	The Legion of Merit is awarded to all members of the Armed Forces without reference to degree for exceptionally meritorious conduct in the performance of outstanding services and achievements.	Team Kill/Death ratio must be at least 5:1

Name	Type	Description	Requirements
Purple Heart	Multiplayer	The Purple Heart is awarded to any member of the Armed Forces who has been wounded or killed, or who has died or may hereafter die after being wounded.	Worst Kill/Death ratio amongst the players
Silver Star	Multiplayer	The Silver Star is awarded to a person who is cited for gallantry in action against an enemy force.	Kill 10 enemy planes and 5 enemy ships
AA Marksmanship	Single and multi-player	The AA Marksmanship is awarded to any person who has distinguished himself in the use of anti-aircraft defenses against enemy aerial attack.	Achieve 100 AA hits and the most AA hits in a mission
Air Unit Service Medal	Single and multi-player	The Air Unit Service Medal is awarded to any person who demonstrates great ability and endurance in piloting an aircraft.	At least 20 minutes unit usage plus used this unit the most in the mission
Artillery Marksmanship	Single and multi-player	The Artillery Marksmanship is awarded to any person who distinguishes himself in the direction of artillery fire onto the enemy.	Achieve 200 artillery hits and the most artillery hits in a mission
Sea Unit Service Medal	Single and multi-player	The Sea Unit Service Medal is awarded to any person who demonstrates long and successful command of a warship.	At least 25 minutes unit usage plus used this unit the most in the mission
Submarine Service Medal	Single and multi-player	The Submarine Service Medal is awarded to any person who demonstrates long and successful command of a submarine.	At least 15 minutes unit usage plus used this unit the most in the mission
Torpedo Marksmanship	Single and multi-player	The Torpedo Marksmanship citation is awarded to any person who distinguishes himself in employment of torpedoes against enemy vessels.	Achieve 15 torpedo hits and the most torpedo hits in a mission

★ Xbox 360 Gamerscore ★

Name	Gamerpoints	Description
Hardened Veteran of Midway	150	Complete all single-player campaign missions on Veteran difficulty level
Medal of Honor	150	Must reach the time and hit limits of the Service and Marksmanship medals
Veteran of Midway	100	Complete all single-player campaign missions
Air Medal	50	Kill 20 enemy planes and reach at least 5 minutes plane usage
Distinguished Flying Cross	50	Kill 40 enemy planes and reach at least 5 minutes plane usage
Veteran Captain	50	Complete all Ship Challenge missions
Veteran Pilot	50	Complete all Plane Challenge missions

Medals and Awards

Name	Gamerpoints	Description
Veteran Submarine Commander	50	Complete all Submarine Challenge missions
Naval Academy Graduation	40	Complete all Naval Academy missions
Navy Cross	40	Kill 10 enemy ships and reach at least 5 minutes ship usage
Navy Distinguished Service Medal	40	Kill 5 enemy ships and reach at least 5 minutes ship usage
Distinguished Service Cross	30	Kill 50 enemy planes and 10 enemy ships
Silver Star	30	Kill 10 enemy planes and 5 enemy ships
AA Marksmanship	20	Achieve 100 AA hits and the most AA hits in a mission
Air Unit Service Medal	20	At least 20 minutes unit usage plus used this type the most in a mission
Artillery Marksmanship	20	Achieve 200 artillery hits and the most artillery hits in a mission
Bronze Star	20	Team Kill/Death ratio must be at least 3:1
Legion of Merit	20	Team Kill/Death ratio must be at least 5:1
Sea Unit Service Medal	20	At least 25 minutes unit usage plus used this type the most in a mission
Submarine Service Medal	20	At least 15 minutes unit usage plus used this type the most in a mission
Torpedo Marksmanship	20	Achieve 15 torpedo hits and the most torpedo hits in a mission
Purple Heart	10	Worst Kill/Death ratio amongst the player



Unit Stats

The following tables show important statistics for each of the units in the game:

Max Speed: The maximum speed in knots (ships and subs) or miles per hour (aircraft) for the unit.

Rate of Turn: How fast a ship or sub can turn at full speed ahead in degrees per second.

Max Acceleration: Presented in meters per second per second or m/s^2 (squared). The higher the value, the faster the unit can go from motionless to maximum speed.

Max Deceleration: Represents how quickly a ship slows down once the speed has been set to full stop. Again, the values are in m/s^2 (squared). The higher the value, the faster the ship will come to a complete stop.

Armor: Armor rating for various locations on a ship or aircraft.

Hit Points: The number of hit points for various locations on a ship or aircraft.

Main Guns: The type of main artillery the unit carries.

of Guns: The number of main guns the unit carries.

Damage: The amount of damage each round or shell fired by the main gun inflicts on the target when it hits.

Blast Damage: The amount of damage inflicted on nearby targets. Some weapons cause damage over an area and can still hurt a target even if they don't score a direct hit.

Range: How far away the main gun can engage an enemy target.

Rate of Fire: How many times the main gun can fire a round or shell per minute.

Bomb Type: The type of bombs an aircraft can carry. In some cases this is optional, such as on fighters.

of Bombs: The number of bombs an aircraft carries.

Torpedo Tubes: Represents how many torpedoes the ship or sub can fire at one time before having to reload. However, not all tubes can fire at a single target, depending on the location of the tubes on the ship or sub.

of Torps: How many torpedoes the unit carries.

Damage (per Torpedo): The amount of damage a torpedo inflicts when it hits a target.

Page #: Where you can turn to for more information about this unit.



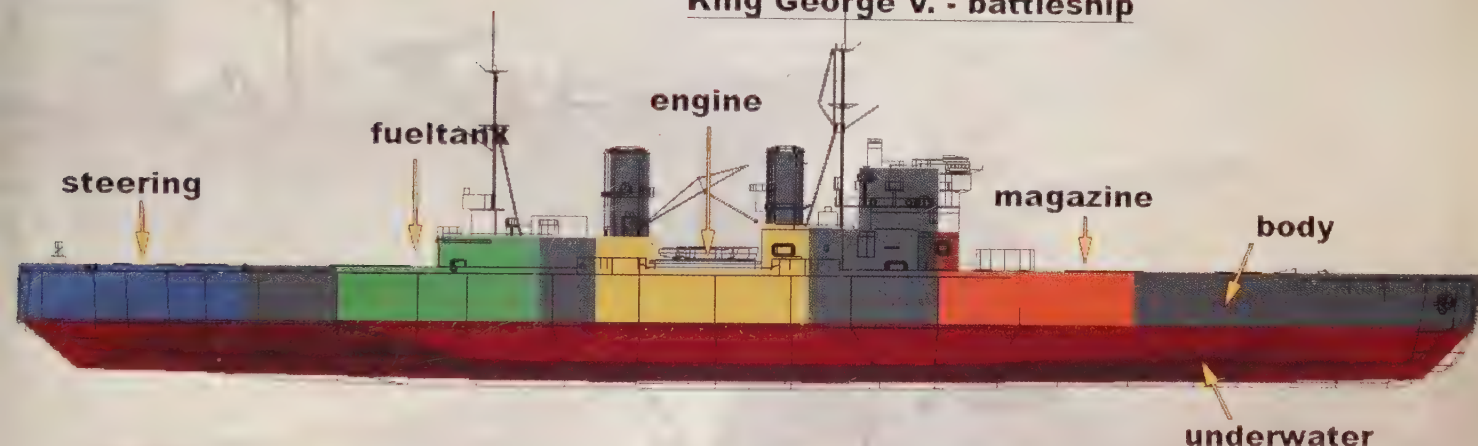
The Damage System

This game uses a straightforward system for determining the damage done to a unit. Every unit consists of various locations. See the following illustration for the different locations on a ship. Aircraft carriers also include a flight deck on top of the ship while submarines have only a single location.

Fletcher - destroyer



King George V. - battleship



This illustration shows the various locations on a destroyer and a battleship. While each ship is different, the locations are always in the same place relative to the ship's length. For example, the steering is always at the rear while the engines are always in the middle.

Whenever a round, shell, or torpedo strikes a target, its damage rating is compared with the armor rating for that location. If the armor is greater than the total damage (damage + blast damage), then the target receives no damage. That is why small guns like those carried on a destroyer will not damage a battleship. If the total damage is greater than the armor rating, the armor rating is subtracted from the total damage and the resulting effective damage is then inflicted on the target's hit points for that location. Each point of effective damage eliminates one hit point. When a location's hit points have been reduced to zero, the target is destroyed. Therefore, it is better to target areas such as the magazine, which have fewer hit points than the body, which often has more hit points.

Aircraft

Name	Type	Nationality	Max Speed (mph)	Armor			Hit Points						
				Wings	Fuselage	Tail	Left Wing	Right Wing	Torpedo	Engine 1	Engine 2	Engine 3	Engine 4
D3A Val	Dive-bomber	Japanese	311	3	4	3	90	90	95	90	—	—	—
SBD Dauntless	Dive-bomber	U.S.	311	3	4	3	90	90	95	90	—	—	—
A6M Zero	Fighter	Japanese	373	8	8	8	60	60	60	60	—	—	—
F2A Buffalo	Fighter	U.S.	373	2	3	2	65	65	60	65	—	—	—
F4F Wildcat	Fighter	U.S.	398	3	4	3	65	65	60	65	—	—	—
F4F Wildcat (Donald's)	Fighter	U.S.	398	10	10	10	180	180	180	180	—	—	—
Hurricane	Fighter	British	410	2	4	2	60	60	60	60	—	—	—
Ki-43 Oscar	Fighter	Japanese	373	2	3	2	60	60	60	60	—	—	—
P-40 Warhawk	Fighter	U.S.	373	3	4	3	65	65	60	65	—	—	—
P-40 Warhawk (Donald's)	Fighter	U.S.	373	10	10	10	180	180	180	180	—	—	—
B-17 Flying Fortress	Level Bomber	U.S.	274	15	10	15	150	150	270	70	70	70	70
B-25 Mitchell	Level Bomber	U.S.	311	7	7	8	140	140	160	60	60	—	—
G3M Nell	Level Bomber	Japanese	311	6	5	6	140	140	140	60	60	—	—
G4M Betty	Level Bomber	Japanese	311	7	6	7	150	150	150	60	60	—	—
E13A Jake	Recon Plane	Japanese	311	2	4	3	60	60	80	40	—	—	—
F1M Pete	Recon Plane	Japanese	311	2	3	2	50	50	50	40	—	—	—
H6K5 Mavis	Recon Plane	Japanese	311	5	5	6	180	180	300	50	50	25	25
H8K Emily	Recon Plane	Japanese	311	6	6	6	180	180	300	50	50	50	50
PBY Catalina	Recon Plane	U.S.	311	7	7	7	120	120	150	60	60	—	—
B5N Kate	Torpedo Bomber	Japanese	311	3	4	3	90	90	95	90	—	—	—
TBD Devastator	Torpedo Bomber	U.S.	311	3	4	3	90	90	95	90	—	—	—
TBF Avenger	Torpedo Bomber	U.S.	311	3	4	3	90	90	95	90	—	—	—

Medals and Awards

Primary Weapon	# Guns	Damage (per Gun)	Range (NM)	Rate of Fire (RPM)	Bomb Type	# Bombs	Damage (per Bomb)	Blast Damage (per Bomb)	# of Torps	Damage (per Torpedo)	Page #
7.7 mm MG	2	14	0.43	600	500 kg	1	260	100	—	—	60
.50 cal MG	2	18	0.43	600	1000 lb	1	260	100	—	—	59
20 mm auto- cannon	2	20	0.43	600	100 kg	2	—	100	—	—	58
.50 cal MG	4	18	0.43	600	200 lb	2	—	100	—	—	56
.50 cal MG	6	18	0.43	600	200 lb	2	—	100	—	—	57
.50 cal MG	6	18	0.43	600	200 lb	2	—	100	—	—	57
.303 cal MG	6	14	0.43	600	—	—	—	—	—	—	57
12.7 mm MG	2	18	0.43	600	100 kg	2	—	100	—	—	58
.50 cal MG	4	18	0.43	600	200 lb	2	—	100	—	—	56
.50 cal MG	4	18	0.43	600	200 lb	2	—	100	—	—	56
.50 cal MG	13	18	0.43	600	450 lb	24	200	75	—	—	63
.50 cal MG	10	18	0.43	600	450 lb	14	200	75	—	—	64
7.7 mm MG	3	14	0.43	600	250 kg	6	200	75	1	250	65
7.7 mm MG	3	14	0.43	600	250 kg	12	200	75	1	250	65
7.7 mm MG	1	14	0.43	600	250 kg	2	200	75	—	—	66
7.7 mm MG	2	14	0.43	600	—	—	—	—	—	—	68
7.7 mm MG	4	14	0.43	600	—	—	—	—	2	250	67
7.7 mm MG	3	14	0.43	600	—	—	—	—	2	250	67
.50 cal MG	2	18	0.43	600	—	—	—	—	2	250	66
7.7 mm MG	2	14	0.43	600	500 kg	1	260	100	1	250	63
.30 cal MG	1	14	0.43	600	—	—	—	—	1	250	61
.50 cal MG	2	18	0.43	600	1,000 lb	1	260	100	1	250	61

Ships

Name	Type	Nationality	Max Speed (Knots)	Max Rate of Turn (Degrees per Second)	Max Acceleration	Max Deceleration	Armor							
							Engine Room	Magazines	Fuel Tanks	Steering	Underwater	Deck	Gun Deck	Island
Akagi	Aircraft Carrier	Japanese	20	3	1	2	90	135	135	90	180	90	95	90
Hermes	Aircraft Carrier	British	20	3	1	2	90	135	135	90	190	90	95	90
Lexington	Aircraft Carrier	U.S.	20	3	1	2	90	135	135	90	180	90	95	90
Soryu	Aircraft Carrier	Japanese	20	3	1	2	90	135	135	90	180	90	95	90
Yorktown	Aircraft Carrier	U.S.	20	3	1	2	90	135	135	90	180	90	95	90
Fuso	Battleship	Japanese	20	3	1	1.3	160	190	190	160	190	—	—	160
King George V	Battleship	British	20	3	0.8	2	170	200	200	170	190	—	—	170
Kongo	Battleship	Japanese	25	3	2	1.2	160	190	190	160	190	—	—	160
New York	Battleship	U.S.	20	3	1	2	160	190	190	160	190	—	—	160
Renown	Battleship	British	25	3	2	2	160	190	190	160	190	—	—	160
Yamato	Battleship	Japanese	25	3	0.6	1	200	230	230	200	196	—	—	200
Cargo Transport	Cargo	All	18	3	1	2	50	10	10	50	80	10	—	50
Tanker	Cargo	All	18	3	1	2	50	10	10	50	80	10	—	50
Troop Transport	Cargo	All	18	3	1	2	50	50	50	50	80	10	—	50
Atlanta	Cruiser	U.S.	30	6	3	2	90	135	135	90	175	—	—	90
Cleveland	Cruiser	U.S.	30	6	3	2	90	135	135	90	160	—	—	90
De Ruyter	Cruiser	Dutch	30	6	3	2	90	135	135	90	160	—	—	90
Kuma	Cruiser	Japanese	30	6	3	2	90	135	135	90	175	—	—	90
Mogami	Cruiser	Japanese	28	6	2	2	100	150	150	100	180	—	—	100
Northampton	Cruiser	U.S.	28	6	2	2	100	150	150	100	180	—	—	100
Takao	Cruiser	Japanese	28	6	2	2	100	150	150	100	180	—	—	100
Tone	Cruiser	Japanese	28	6	2	2	100	150	150	100	180	—	—	100
York	Cruiser	U.S.	28	6	2	2	100	150	150	100	180	—	—	100
Clemson	Destroyer	U.S.	40	8	3	2	50	75	75	50	95	—	—	50
Fletcher	Destroyer	U.S.	40	8	3	2	50	75	75	50	95	—	—	50
Fubuki	Destroyer	Japanese	40	8	3	2	50	50	50	50	95	—	—	50
Minekaze	Destroyer	Japanese	40	8	3	2	50	50	50	50	95	—	—	50

Medals and Awards

Hit Points						Main Guns	# of Guns	Damage	Blast Damage	Range (MM)	Rate of Fire (RPM)	Torpedo Tubes	# of Torps	Damage (per Torpedo)	Page #
Room	Fuel Tank	Magazine	Steering	Body	Flight Deck										
300	300	300	300	300	1,000	5"/40 AA	12	—	40	1.08	11	—	—	—	40
300	300	300	300	300	1000	20 mm Oerlikon AA	1	16	—	0.54	200	—	—	—	39
300	300	300	300	300	1,000	5"/25	4	120	30	0.81	11	—	—	—	39
300	300	300	300	300	1,000	5"/40 AA	12	—	40	1.08	11	—	—	—	41
300	300	300	300	300	1,000	5"/25	8	120	30	0.81	11	—	—	—	40
300	300	300	300	1000	—	14"/45	12	250	100	1.62	5	—	—	—	37
300	300	300	300	1,000	—	14"/45	10	250	100	1.62	5	—	—	—	35
300	300	300	300	1,000	—	14"/45	8	250	100	1.62	5	—	—	—	38
300	300	300	300	1,000	—	14"/45	10	250	100	1.62	5	—	—	—	36
300	300	300	300	1,000	—	15"/42	6	250	100	1.62	5	—	—	—	36
300	300	300	300	1,000	—	18.1"/45	9	300	125	1.78	5	—	—	—	38
200	300	300	200	300	—	20 mm Oerlikon AA	2	16	—	0.54	200	—	—	—	44
200	400	400	200	300	—	20 mm Oerlikon AA	1	16	—	0.54	200	—	—	—	45
200	200	200	200	300	—	4"/50	1	120	30	0.81	11	—	—	—	44
200	200	200	200	1000	—	5"/38 DP	16	120	30	0.81	11	6	24	250	30
200	200	200	200	300	—	6"/47	12	150	40	1.02	9	—	—	—	30
200	200	200	200	750	—	6"/53	7	150	40	1.02	9	—	—	—	31
200	200	200	200	750	—	5.5"/50	7	120	30	0.81	11	8	24	250	33
250	250	250	250	750	—	8"/50	10	200	55	1.18	7	12	36	250	33
250	250	250	250	750	—	8"/55	9	200	55	1.18	7	—	—	—	31
250	250	250	250	750	—	8"/50	10	200	55	1.18	7	12	44	250	34
250	250	250	250	750	—	8"/50	8	200	55	1.18	7	12	36	250	34
250	250	250	250	750	—	8"/55	6	200	55	1.18	7	6	24	250	32
100	100	100	100	500	—	4"/50	4	120	30	0.81	11	8	24	250	27
100	100	100	100	500	—	5"/38 DP	5	120	30	0.81	11	6	30	250	27
100	100	100	100	500	—	5"/50 DP	6	120	30	0.81	11	6	27	250	28
100	100	100	100	500	—	4.5"/45	4	120	30	0.81	11	6	18	250	29

Name	Type	Nationality	Max Speed (Knots)	Max Rate of Turn (Degrees per Second)	Max Acceleration	Max Deceleration	Armor							
							Engine Room	Machinery	Fuel Tanks	Steering	Deck	Weapon	Flight Deck	Body
Higgins LCP	Landing Ship	U.S.	50	15	4	2	4	4	4	4	4	—	—	4
LST	Landing Ship	U.S.	16	8	3	2	50	50	50	50	50	—	—	50
Daihatsu LCP	Landing Ship	Japanese	25	15	4	2	2	3	3	3	3	—	—	1
SB-boat	Landing Ship	Japanese	16	10	4	2	50	50	50	50	50	—	—	50
Elco PT Boat	Torpedo Boat	U.S.	50	50	5	4	4	4	4	4	4	—	—	4
Japanese Patrol Boat	Torpedo Boat	Japanese	50	36	5	4	4	4	4	4	4	—	—	4

Submarines

Name	Type	Nationality	Max Speed (Surface—Knots)	Max Speed (Submerged—Knots)	Max Rate of Turn (Degrees per Second)	Max Acceleration	Max Deceleration	Armor	Hit Points
Narwhal	Fleet Submarine	U.S.	30	25	6	1	2	40	400
Type B	Fleet Submarine	Japanese	30	25	6	1	2	40	400
Midget Sub	Mini Submarine	Japanese	30	25	30	1	2	10	80

Medals and Awards

Hit Points						Main Guns	# of Guns	Damage	Blast Damage	Range (NM)	Rate of Fire (RPM)	Torpedo Tubes	# of Torps	Damage (per Torpedo)	Page #
Engine room	Fuel Tank	Magazine	Steering	Body	Flight Deck										
200	—	—	—	—	—	M1919 .30" MG	2	14	—	0.43	600	—	—	—	42
100	100	100	100	200	—	4"/50 DP	1	120	30	0.81	11	—	—	—	42
90	—	—	—	—	—	7.7 mm Type 97 MG	2	14	—	0.43	600	—	—	—	43
100	100	100	100	200	—	5"/50	2	120	30	0.81	11	—	—	—	43
400	—	—	—	—	—	M2 .50" MG	2	18	—	0.43	600	4	8	250	25
400	—	—	—	—	—	5" / 50 DP	1	120	30	0.81	11	2	4	250	26

Main Guns	# of Guns	Damage (per Gun)	Blast Damage (per Gun)	Range (NM)	Rate of Fire (RPM)	Torpedo Tubes	# of Torps	Damage (per Torpedo)	Page #
5"/25	1	120	30	0.81	11	6	24	235	72
4"/45	1	120	30	0.81	11	6	24	235	73
—	—	—	—	—	—	2	2	235	73



BATTLESTATIONS MIDWAY

NAVAL UNITS

Yorktown Class

Type: CV • In Service: 1937 • Displacement: 25500 bwt
• Dimensions: 761' x 83.25' x 25' 11.5" • Crew: 2217
• Speed: 20 kts • Armour: 90
Weapons: 8 x 5"/25 gun, 2 x 40mm Bofors AA gun,
1 x 20mm Oerlikon AA gun

Fletcher Class

Type: DD • In Service: 1942 • Displacement: 2924 bwt
• Dimensions: 378' 5" x 39' 7" x 13' 9" • Crew: 273
• Speed: 35 kts • Armour: 50

Lexington Class

Type: CV • In Service: 1927 • Displacement: 38746 bwt
• Dimensions: 850' x 105' 5.25' x 24' 3" • Crew: 2122
• Speed: 20 kts • Armour: 90
Weapons: 4 x 5"/25 gun, 3 x 40mm Bofors AA gun,
4 x 20mm Oerlikon AA gun

King George V Class

Type: BB • In Service: 1940 • Displacement: 42078 bwt
• Dimensions: 745' x 112' 3" x 35' 8"
• Crew: 1422 • Speed: 20 kts • Armour: 170
Weapons: 10 x 14"/45 gun, 16 x 5"/56 DP gun,
4 x 28mm quad AA gun, 3 x 20mm Oerlikon AA gun

Cleveland Class

Type: CL • In Service: 1942 • Displacement: 10090 bwt
• Dimensions: 410' 1" x 66' 4" x 25' • Crew: 1255
• Speed: 19 kts • Armour: 90
Weapons: 1 x 4"/7 gun, 12 x 5"/28 DP gun,
1 x 40mm AA gun, 3 x 20mm Oerlikon AA gun

Arwal Class

Type: SS • In Service: 1938 • Displacement: 2730 / 3960 bwt
• Dimensions: 78' x 6' 6" • Crew: 2 • Speed: 25 / 12.5 kts • Armour: 10
Weapons: 2 x torpedo tubes aft

Tank Mark 2

Type: PT • In Service: 1942 • Displacement: 56 bwt
• Dimensions: 80' x 20' 8" x 5' 3" • Crew: 12-14 • Speed: 50 kts • Armour: 4
Weapons: 2 x M2 .50" machine gun, 1 x 20mm Oerlikon AA gun,
4 x torpedo tubes, Depth Charge racks

Class

Type: LCP • In Service: 1940 • Displacement: 12 bwt
• Dimensions: 80' x 20' 8" x 5' 3" • Crew: 12-14 • Speed: 50 kts • Armour: 4
Weapons: 1 x 4"/45 gun, 1 x 7.7mm Type 97 AA gun,
4 x torpedo tubes forward, 2 x torpedo tubes aft

Elco PT Boat

Type: PT • In Service: 1942 • Displacement: 56 bwt
• Dimensions: 80' x 20' 8" x 5' 3" • Crew: 12-14 • Speed: 50 kts • Armour: 4
Weapons: 2 x M2 .50" machine gun, 1 x 20mm Oerlikon AA gun,
4 x torpedo tubes, Depth Charge racks

Higgins Boat

Type: LCP • In Service: 1940 • Displacement: 12 bwt
• Dimensions: 80' x 20' 8" x 5' 3" • Crew: 12-14 • Speed: 50 kts • Armour: 4
Weapons: 1 x 4"/45 gun, 1 x 7.7mm Type 97 AA gun,
4 x torpedo tubes forward, 2 x torpedo tubes aft

US Troop Transport

Type: AK • In Service: N/A • Displacement: 21900 bwt • Dimensions: 535' x 72' x 31' 3"
• Crew: 725 • Speed: 18 kts • Armour: 50
Weapons: 1 x 4"/56 gun, 3 x 20mm Oerlikon AA gun, 1 x 28mm quad AA gun

Fuso Class

Type: BB • In Service: 1915 • Displacement: 39154 bwt
• Dimensions: 698' 0" x 100' 5" x 31' 9" • Crew: 1400
• Speed: 20 kts • Armour: 160

Akagi Class

Type: CV • In Service: 1927 • Displacement: 41300 bwt
• Dimensions: 853' 3" x 102' 9" x 28' 7" • Crew: 2008
• Speed: 20 kts • Armour: 90
Weapons: 12 x 5"/40 AA gun, 16 x 25mm/60 AA gun

Kongo Class

Type: BB • In Service: 1913 • Displacement: 38501 bwt
• Dimensions: 728' 4" x 101' 8" x 31' 9" • Crew: 1360
• Speed: 20 kts • Armour: 160
Weapons: 8 x 14"/45 gun, 14 x 5.5"/50 gun, 8 x 5"/40 AA gun,
4 x 13mm/76 AA gun, 8 x 25mm/60 AA gun

Soryu Class

Type: CV • In Service: 1939 • Displacement: 20250 bwt
• Dimensions: 745' 11" x 73' 3" x 25' 9" • Crew: 1100
• Speed: 20 kts • Armour: 90
Weapons: 12 x 5"/40 AA gun, 18 x 25mm/60 AA gun

Yamato Class

Type: BB • In Service: 1941 • Displacement: 71659 bwt
• Dimensions: 862' 10" x 121' 1" x 32' 11" • Crew: 2800
• Speed: 25 kts • Armour: 200
Weapons: 7

Minekaze Class

Type: DD • In Service: 1920
• Displacement: 1650 bwt • Dimensions: 337' x 29' 3" x 9' 5"
• Crew: 148 • Speed: 35 kts • Armour: 50
Weapons: 4 x 4.5"/45 gun, 2 x 13mm/76 AA gun,
6 x torpedo tubes, Depth Charge racks

Type A Minisub

Type: SS • In Service: 1938 • Displacement: 46 bwt
• Dimensions: 78' x 6' 6" • Crew: 2 • Speed: 25 / 12.5 kts • Armour: 10
Weapons: 2 x torpedo tubes

Type B Submarine

Type: SS • In Service: 1940 • Displacement: 2584 / 3654 bwt
• Dimensions: 356' 5" x 30' 5" x 18' 9" • Crew: 84 • Speed: 20/15 kts • Armour: 20
Weapons: 1 x 4"/45 gun, 1 x 7.7mm Type 97 AA gun,
4 x torpedo tubes forward, 2 x torpedo tubes aft

SB Boat Second class

Type: LST • In Service: 1943 • Displacement: 1965 bwt
• Dimensions: 315' x 33' 5" x 12' 5" • Crew: 148 • Speed: 16 kts • Armour: 50
Weapons: 2 x 5"/56 gun, 4 x 7.7mm Type 97 AA gun

Takao Class

Type: CA • In Service: 1932 • Displacement: 15781 bwt
• Dimensions: 661' 9" x 68' 0" x 20' 9" • Crew: 773 • Speed: 25 kts • Armour: 100
Weapons: 10 x 8"/50 gun, 8 x 5"/40 AA gun,
2 x 13mm/76 AA gun, 12 x 25mm/60 AA gun, 12 x torpedo tubes

Kuma Class

Type: CL • In Service: 1920 • Displacement: 5832 bwt
• Dimensions: 532' 0" x 46' 8" x 15' 9" • Crew: 439 • Speed: 30 kts • Armour: 50
Weapons: 7 x 5.5"/50 gun, 4 x 13mm/76 AA gun, 8 x torpedo tubes

Japanese Patrol Boat

Type: PT • In Service: 1933 • Displacement: 87 bwt
• Dimensions: 114' x 15' x 6' 9" • Crew: 9 • Speed: 50 • Armour: 4
Weapons: 1 x 5"/50 DP gun, 1 x 13mm/76 AA gun,
2 x torpedo tubes, Depth Charge racks

Daihatsu Barge

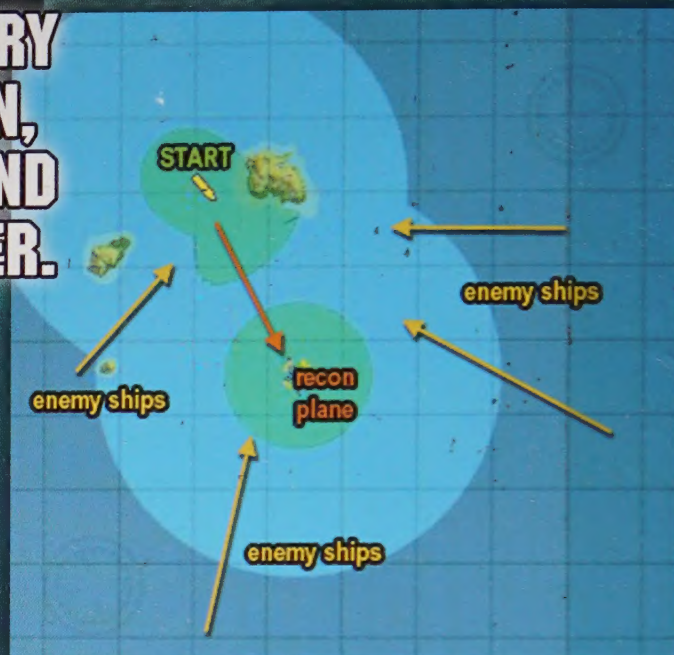
Type: LCP • In Service: 1939 • Displacement: 15
• Dimensions: 47' 7" x 11' x 2' 3" • Crew: 2
• Speed: 25 kts • Armour: 2
Weapons: 2 x 7.7mm Type 97 machine gun

Tanker

Type: AK • In Service: N/A • Displacement: 21077 bwt • Dimensions: 501' 5" x 68' x 30' 2"
• Crew: 214 • Speed: 18 kts • Armour: 50
Weapons: 1 x 20mm Oerlikon AA gun

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