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PRELUDE...

President Roosevelt to Emperor Hirohito of Japan:

December 6, 1941

Almost a century ago the President of the United States addressed to the Emperor of Japan a message extending an offer of friendship of the people of the United States to the people of Japan. That offer was accepted, and in the long period of unbroken peace and friendship which has followed, our respective nations, through the virtues of their peoples and the wisdom of their rulers have prospered and have substantially helped humanity.

Only in situations of extraordinary importance to our two countries need I address to Your Majesty messages on matters of state. I feel I should now so address you because of the deep and far-reaching emergency which appears to be in formation.

Developments are occurring in the Pacific area which threaten to deprive each of our nations and all humanity of the beneficial influence of the long peace between our two countries. Those developments contain tragic possibilities.

The people of the United States, believing in peace and in the light of nations to live and let live, have eagerly watched the conversations between our two Governments during these past months. We have hoped for a termination of the present conflict between Japan and China. We have hoped that a peace of the Pacific could be consummated in such a way that nationalities of many diverse peoples could exist side by side without fear of invasion — that unbearable burdens of armaments could be lifted for them all, and that all peoples would resume commerce without discrimination against or in favor of any nation.

I am certain that it will be clear to Your Majesty, as it is to me, that in seeking these great objectives both Japan and the United States should agree to eliminate any form of military threat. This seemed essential to the attainment of the high objectives.

More than a year ago Your Majesty's Government concluded an agreement with the Vichy Government by which five or six thousand Japanese troops were permitted to enter into Northern French Indo-China for the protection of Japanese troops which were operating against China further north. And this Spring and Summer the Vichy Government permitted further Japanese military forces to enter into Southern French Indo-China for the common defense of French Indo-China. I think I am correct in saying that no attack has been made upon Indo-China, nor that any has been contemplated.

During the past few weeks it has become clear to the world that Japanese military, naval and air forces have been sent to Southern Indo-China in such large numbers as to create a reasonable doubt on the part of other nations that this continuing concentration in Indo-China is not defensive in its character.

U.S. Battleships advancing in column.

Because these continuing concentrations in Indo-China have reached such large proportions and because they extend now to the southeast and the southwest corners of that Peninsula, it is only reasonable that the people of the Philippines, of the hundreds of Islands of the East Indies, of Malaya and of Thailand itself are asking themselves whether these forces of Japan are preparing or intending to make attack in one or more of these many directions.

I am sure that Your Majesty will understand that the fear of all these peoples is a legitimate fear in as much as it involves their peace and their national existence. I am sure that Your Majesty will understand why the people of the United States in such large numbers look askance at the establishment of military, naval and air bases manned and equipped so greatly as to constitute armed forces capable of measures of offense.

It is clear that a continuance of such a situation is unthinkable.

None of the peoples whom I have spoken of above can sit either indefinitely or permanently on a keg of dynamite.

There is absolutely no thought on the part of the United States of invading Indo-China if every Japanese soldier or sailor were to be withdrawn therefrom.

I think that we can obtain the same assurance from the Governments of the East Indies, the Governments of Malaya and the Government of Thailand. I would even undertake to ask for the same assurance on the part of the Government of China. Thus a withdrawal of the Japanese forces from Indo-China would result in the assurance of peace throughout the whole of the South Pacific area.

Continues...

I address myself to Your Majesty at this moment in the fervent hope that Your Majesty may, as I am doing, give thought in this definite emergency to ways of dispelling the dark clouds. I am confident that both of us, for the sake of the peoples not only of our own great countries but for the sake of humanity in neighboring territories, have a sacred duty to restore traditional amity and prevent further death and destruction in the world.

–FRANKLIN D. ROOSEVELT

Imperial Rescript

December 8, 1941

We, by the grace of Heaven, Emperor of Japan seated on the throne of a line unbroken for ages eternal, enjoin upon ye, our loyal and brave subjects:

We hereby declare war on the United States of America and the British Empire.

Men and officers of our Army and Navy shall do their utmost in prosecuting the war, our public servants of various departments shall perform faithfully and diligently their appointed tasks and all other subjects of ours shall pursue their respective duties — the entire nation with united will shall mobilize their total strength so that nothing will miscarry in the attainment of our war aims.

To insure the stability of East Asia and to contribute to world peace is the far-sighted policy which was formulated by our great, illustrious, imperial grand-sire and by our great imperial sire succeeding him and which we lay constantly to heart. To cultivate friendship among the nations and to enjoy prosperity in common with all nations has always been the guiding principle of our Empire's foreign policy.

It has been truly unavoidable and far from our wishes that our Empire has now been brought to cross swords with America and Britain. More than four years have passed since China, failing to comprehend the true intentions of our Empire and recklessly courting trouble, disturbed the peace of East Asia. Although there has been re-established a national government of China with which Japan has effected neighborly intercourse and cooperation, the regime which has survived at Chungking, relying upon American and British protection, still continues its fratricidal opposition.

Japanese carrier launches aircraft – destination Pearl Harbor.
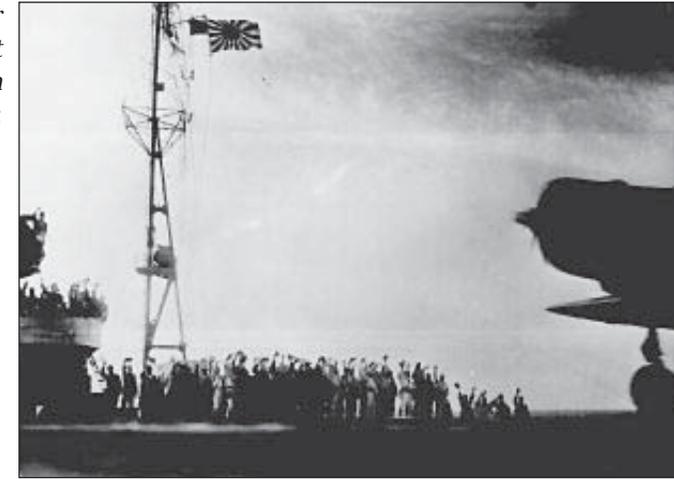
Eager for the realization of their inordinate ambition to dominate the Orient, both America and Britain, in giving support to the Chungking regime, have aggravated the disturbances in East Asia. Moreover, these two powers, inducing other countries to follow suit, increased military preparations on all sides of our Empire to challenge us. They have obstructed by every means our peaceful commerce, and finally have resorted to the direct severance of economic relations, menacing gravely the existence of our Empire.

Patiently have we waited and long have we endured in the hope that our Government might retrieve the situation in peace.

But our adversaries, showing not the least spirit of conciliation, have unduly delayed a settlement, and in the meantime they have intensified economic and political pressure to compel thereby our Empire to submission.

This trend of affairs would, if left unchecked, not only nullify our Empire's efforts of many years for the sake of stabilization of East Asia, but also endanger the very existence of our nation. The situation being such as it is, our Empire, for its existence and self-defense, has no other recourse but to appeal to arms and to crush every obstacle in its path.

Hallowed spirits of our imperial ancestors guarding us from above, we rely upon the loyalty and courage of our subjects in our confident expectation that the task bequeathed by our forefathers will be carried forward and that sources of evil will be speedily eradicated and enduring peace and immutably established in East Asia, preserving thereby the glory of our Empire.

INTRODUCTION

PACIFIC GENERAL is a simulation game set in the Pacific theater of conflict in World War II, pitting the Japanese Empire against the combined might of the Allied forces. In this game, it is possible to take either side in the conflict, which can be played from the dawn of combat in 1937 through to the historical or hypothetical outcome(s) of the war. Land, air, and naval operations play a key role in the battles to be fought.

The Rising Sun...

The Japanese war machine began in direct response to Western influences in the Asian theater. Seeing the Europeans and Americans loot their backyard generated a fear that their own island would face a similar fate. Thus was born the goal of a greater "Asian Unity" and the death of isolationism. The Russians were first dealt a humiliating loss before the Great War — then, Manchuko fell under Japan's thumb. China, disorganized and wracked by internal conflict, lay open and waiting for leadership.

The goal of a united Asia, free of Western Imperialists is within your grasp - the fate of the continent is in your hands.

Twilight of Empires...

The United States entered the 20th century with great zeal, but not much foresight. The American role in the "Great War" solidified their position as one of the world's great powers. Isolationism and a lack of strong plans followed this new position, shrinking US vision over the next two decades. The British influence continued to decline throughout the Pacific, as the German situation diverted attention and resources from the Orient. This left Hong Kong, Australia, and India with little protection in the face of an expansive enemy.

America, fat on its laurels, has been attacked by the Japanese at Pearl Harbor. The US has taken the lead in the war to fight the Japanese and push them back to their island once and for all.

Getting Started

If you want to get a quick start, refer to the "Tutorial/Quick Start" section of the manual which begins on page 7. It provides a step-by-step battle plan to familiarize you with the menus and aspects of a PACIFIC GENERAL scenario, and should take you through the Tutorial scenario. If, however, you prefer to familiarize yourself with the game as a whole, turn to the "The Game Map Controls, Windows, And Buttons" and "PACIFIC GENERAL Screen Options" sections on pages 50, and 28, respectively.

What Comes with this Game?

Your game box should contain this User Manual, a data card, and a PACIFIC GENERAL CD. This User Manual contains two tutorials, a detailed interface description, and a discussion of the rules under which combat, movement and other game features operate. To install this game and start playing, follow the instructions on the data card.

Copy Protection

There is no physical copy protection on your PACIFIC GENERAL CD, but in order to play the game the CD must be in the CD-ROM drive.

Using the Mouse

In PACIFIC GENERAL whenever the mouse passes over a unit, button, or hex, a description appears in an Information bar on the screen. This makes identifying game elements straightforward during gameplay. The hot-text for useable options is white, unavailable options are in red.

In this manual, the term "click" or "left-click" means moving the mouse pointer to the desired area on the screen and pressing the left mouse button.

"Right-click" means moving the mouse pointer to the desired area and pressing the right mouse button. **Note:** Right-clicking deselects a unit that has moved.

Next Screen, Previous Screen and Exit Window Buttons

The following buttons are used throughout the game to indicate when you can:

proceed to the next screen,

return to the previous screen, or

exits from a window and returns to the screen where you started.
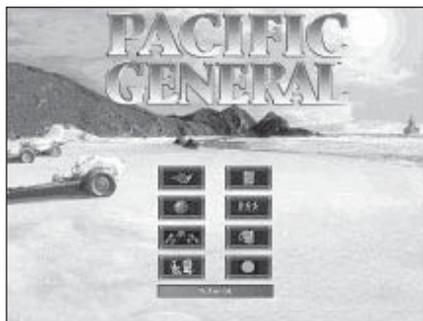
TUTORIAL / QUICK START

For those of you who have never played a Five-Star series game these tutorials are designed to familiarize you with the game mechanics in a land based scenario first, followed by a naval scenario. If you have played a FIVE-STAR™ series game before, you may wish to play the tutorial scenarios anyway — PACIFIC GENERAL introduces new movement and combat options which are described below.

Left-clicking on the Tutorial button on the PACIFIC GENERAL screen presents a screen similar to the Campaign Selection screen, where you choose between the two introductory scenarios, the Land tutorial and the Naval tutorial. These scenarios are designed to introduce you to the basic concepts of playing a PACIFIC GENERAL land based battle versus a naval battle.

The Next or Start button begins the selected game while the Previous button returns to the PACIFIC GENERAL screen.

Land Combat Tutorial

A very important feature of PACIFIC GENERAL is that no two combats are ever the same. The following tutorial represents a very likely set of events based on specific actions on turns one and two. After that the situation will have become too fluid to direct precisely. A wise commander, either Axis or Allied, knows that no battle plan survives contact with the enemy. Be prepared to improvise, possibly as early as turn 2, and if things do not go your way, you can always play the scenario again!

Each scenario in PACIFIC GENERAL is made up of a number of "turns." In each turn you and your enemy are given a chance to move units, attack enemy units, resupply units, etc. When your turn is done and you have moved or given orders to all of your units, left-click on End Turn. Afterward, the enemy moves its units and completes the turn.

Select the land battle tutorial, by clicking on the large image on the right. Now left-click on the Start button in the lower right hand corner. In this tutorial scenario it is not necessary to select which side to play. Normally you would be able to select between playing the Allies or the Axis, and having the computer or another human player as an opponent. In this tutorial, the next screen that comes up is the Turn Information screen.

This screen displays the following information:

- what the turn number is followed by the total number of turns in the scenario,
- the date,
- the weather conditions,
- whether it is a day or night turn,
- and the predicted weather and time of day of the following turn.

Click anywhere on this screen to proceed to the Game Map screen. When it appears, you see the battle map surrounded by information panels across the top and buttons down either side which are illuminated or dim, like shoji panels from a Japanese home.

Unit Information

Once in the scenario, take a moment or two to look the map over. When you place the mouse pointer over a unit, the following information is displayed in the information panel.

- unit name
- unit type
- fuel supply
- ammunition supply
- entrenchment level
- the unit's experience level is displayed as a vertical row of stars.

This information appears in the information panel to the upper-right hand side of the screen. The bottom border of the four panels across the top of the screen contains three text displays and is called the Status bar.

Control Buttons

There is also a row of buttons down either side of the screen with black icons on illuminated or dim backgrounds. The illuminated buttons represent controls that are active, dim buttons are controls that are toggled off or unavailable. The buttons down the right side are the Options Controls. The buttons on the left side of the screen are the Main Controls when no unit is selected, but change to the Unit Controls when a unit has been selected for movement or combat.

Running the mouse pointer over the buttons on the menus causes hot text to appear for each button. Try this out by finding the button on the right side Option Controls to turn the hex sides on or off — the hot text reads Toggle Hexsides Off. By clicking on this button you can cause the hex-grid overlay to disappear and re-appear. The buttons can be hidden or revealed by pressing the Spacebar of your keyboard. When the buttons are hidden, they can be viewed in a "drop down" mode by moving the mouse pointer over the end of the Status bar and down the area where the buttons normally appear.

Reading the Status Bar

The text on the left says Prestige 1000. This display is the amount of prestige available to the Axis side at any point during the scenario. Prestige is used to buy new units, and provide replacements for damaged units. It can also serve as a measure of success. For more information see the "Prestige Points and Purchasing Units" section starting on page 76.

The center text consists of a hex description followed by a pair of numbers which correspond to that hex's X,Y coordinates, followed by the name of the country in control of the hex if a country controls it. Move the mouse around some to get an idea of how these coordinates work, because they are going to be used throughout both this tutorial and the naval tutorial which follows.

The Status bar text on the right side, under the Weather panel, displays the turn number followed by the number of turns on the scenario in parentheses.

Spotting

Many of the hexes on the map near you units appear lighter than those farther away — these represent hexes your units can see into based on their "spotting" characteristic. Hexes that are darkened may have enemy units in them that your forces cannot see.
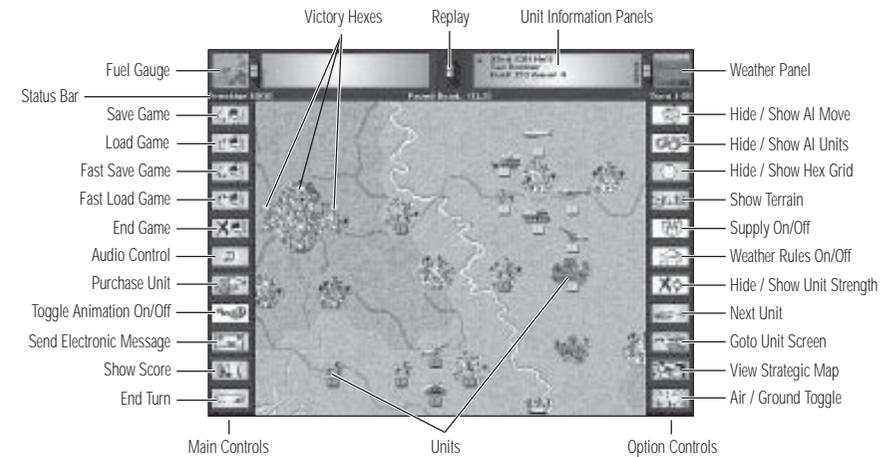
Giving Orders

Left-click on any unit with a brown strength indicator to make it ready for orders. On the map the lighted hexes are the hexes that the unit you selected can move to. Be aware that it cannot move to a hex occupied by another unit (with the exception of an air unit). Now look at the panels at the top of the screen. In the left section is the currently selected unit's name, type, strength, experience, and entrenchment level. To the right is a description of any unit (yours or the enemy's) the mouse icon is currently over, including its name, type, strength, experience, and entrenchment level.

In the upper right corner of the game screen is a graphic animation representing the current weather conditions in the scenario. In the upper left corner is an animation of the type of scenario you are in; land, island, or naval; or the nationality if a unit other than an airplane is active, unless the active unit is an aircraft, in which case, the upper left corner panel contains the unit's fuel gauge.

Moving Your Units

In order to select a unit to move, simply left-click on it. The area that the unit can move to stays lighter. Your units can frequently move farther than they can see, which leaves them open for encounters with unseen enemy units. Right-clicking without moving the unit or activating any of the controls of the Unit Control deselects that unit and allows another unit to be chosen. Be careful to deselect a unit by right-clicking before trying to activate another unit, particularly if you are switching from surface to air units, or you may accidentally move a unit somewhere you do not wish to. If air and ground units occupy the same hex, click on the Air/Ground Toggle to switch between the two units.

The buttons on the left side of the screen change to reflect the controls of the Unit Control when a unit is selected. Left-clicking on a selected unit a second time opens a window with the same buttons. This is another way to access the Unit Controls if you have toggled the Game Map buttons off.

If you right-click on an inactive unit, friendly or otherwise, a window appears displaying the unit's statistics, which can be closed by clicking on the panel.

- Left-clicking activates buttons.
- Left-clicking on a unit makes it ready for orders, and the hex-border that unit is in turns red — the hexes that unit can move to are lighter than those it cannot reach.
- Left-clicking on a ready unit opens the Unit Control window.
- Right-clicking on an active unit deselects it — right-clicking on an inactive unit brings up that unit's statistics display.
- The Spacebar hides or reveals the buttons on both sides of the screen. Moving the mouse over the ends of the Status bar and down the area the buttons reside caused the button menus to "drop-down" when hidden.
- Hot text in red indicates that an option is not available.

Assault on Peking

When this scenario begins, notice that there are five victory hexes under enemy control in the upper left corner of the map (they are the hexes with a gold star in them). Your object is to capture these hexes. Another way to view the battlefield is with the Strategic Map, which can be toggled on by clicking on the second button from the bottom on the right side, or Options Controls.

The Strategic Map
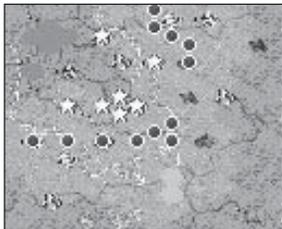
With the Strategic Map displayed, you can see an arc of red circles opposed by a smaller arc of gold stars. The red circles are your units, and the gold stars are the Chinese units that are visible to you. In the upper left corner are five green hexes which correspond to the victory hexes mentioned earlier. The tan hexes in the lower center of the map (10,11) and (10,12) are Axis victory hexes, which you would do well to guard. Left-click on the Toggle Strategic Map button again to return to the Tactical map, or left-click on the Strategic map itself to return. **Note:** This can be a quick way to move around when playing on a larger map.

Taking those five victory hexes does not guarantee you a victory, but it does put you well on the way. PACIFIC GENERAL has three different conditions for determining victory: prestige points worth of units lost, victory hexes controlled, and more than a set number of units destroyed. Most scenarios have a combination of these victory conditions, so that a victory can still be achieved even if that one miserable tank unit just does not die, or that last victory hex is just out of reach.

Axis Turn One

Using Your Air Force

The first thing you want to move is the 91st G3M Nell tactical bomber in hex (9,10) over the enemy artillery unit in hex (7,6). Left-click on the bomber to make it ready, then left-click on the hex containing the artillery unit — your air unit moves into the hex with the howitzer.

Once there place the mouse pointer in the hex and a combat results prediction appears in the form of a reticle with numbers on the right and left. The numbers under each country's flag represent the expected losses for each side. Left-click on the reticle again to attack it with the Nell tac bomber. The actual results will appear in a combat results window. After the results window closes, examine the map — you should see an enemy fighter, as well as other previously hidden units. As your units move, you will spot enemy units as they come into your units' spotting range. You have two Ki-27 Nate fighter planes under your command; move one to hex (6,6) and the second fighter to hex (6,5). Go ahead and attack the 87th I-15 with both fighters.

Notice that the fighters cannot enter the hex with the other fighter. This is because in PACIFIC GENERAL there are surface units and air units. Air units can share hexes with surface units, but air units cannot share a hex with another air unit, and surface units, land or naval, cannot share a hex with another surface unit.

It is easy to tell units which have finished their move from those that have not — when a unit becomes inactive after having been in combat or contacted previously unseen enemy units, the background of its strength indicator darkens. Look closely at the strength indicators of the tac bombers and fighters — in addition to any casualties they have suffered, their strength indicators are now a darker shade of brown and have a red border. A unit whose flag is still light, but is surrounded by darker hexes when selected, has also finished its move but may still be capable of combat if an enemy unit comes into contact with it — a unit that has attacked has a red border around its strength indicator.

Movement Options

In PACIFIC GENERAL you can move several units first, and then conduct your attacks at the most advantageous odds, rather than having to move and attack (or attack and move) each unit in turn. In fact a unit which attacks without moving, can be moved later if the situation presents itself and it has movement remaining. Use this ability with care, however, because it costs a unit that is "dropped" after moving, one movement point to deselect it and then select it to move again. A unit also loses movement when it encounters a zone of control.

Each unit in PACIFIC GENERAL creates a "zone of control" (ZOC) which extends to the six hexes surrounding it. When a unit from one side encounters a ZOC hex from another unit, it loses all remaining movement. There are also a number of special cases regarding zones of control — for more information see the "Zone of Control" section, starting on page 65.

Reducing Entrenchments

You now want to select the second Nell tactical bomber in hex (11,2) and have it bomb the infantry unit in the city hex of Hsiangho (9,4). Follow up this attack with a bombardment from the artillery piece in hex (11,3). Artillery units have a greater range than normal units, usually two to three hexes. The bombing along with the artillery barrage lowers the infantry's entrenchment in addition to causing casualties. Reducing the entrenchment level make it easier to drive a unit out of a hex. Entrenchment represents units which have "dug-in" to a terrain type, making it more difficult to knock them out. Each time a unit is attacked they lose one point of entrenchment making them more vulnerable. For more information see the "Entrenchment" section, starting on page 69.

Take the 82nd Hohei infantry in hex (11,4) and move it to hex (10,5) and attack the infantry unit in the city. This should knock the unit out of the city and drive it onto the river. Now take the 87th type 94 tank unit in hex (10,3) and move it into the city and attack the infantry unit that was knocked back.

Select the infantry unit in hex (9,2) and move it to the bridge hex (7,2), but do not attack the infantry in the city hex (6,3). If the infantry from hex (9,4) is knocked back to hex (7,3) then go ahead and attack it with your infantry. Move your recon unit in hex (9,1) to hex (7,1). Now it is time to move the artillery piece in hex (11,3) to hex (8,2) to support the infantry and recon units. Artillery units provide defensive fire when friendly adjacent units are attacked. Beware of cities defended by units with artillery adjacent to them, as the artillery can support the infantry by shooting at your units as they attack. If an artillery unit is adjacent to other units, attack to destroy, drive away, or weaken the artillery unit before assaulting the units it is supporting

Advance in the South

The next unit you should move and attack with is the 96th Type 95 tank from hex (4,9) — move it one hex north and attack the infantry unit there. You should now move units up to contact the enemy recon and cavalry units near Wuching (8,7), but do not attack with them yet. They are supported by a 75mm Howitzer unit at (7,6), the one you bombed earlier. Move your units forward until they are adjacent to the enemy units, then move the 89th Ho-Ni mobile artillery unit from hex (10,9) to hex (9,8) to support of the engineer unit and infantry unit. Have the 95th Hohei HW infantry stationed in Kuan (2,9) advance across the river.

Saving a Game and Ending the Turn

The button in the upper right corner is the Save Game button. Left-clicking on it opens the Load/Save window. The text line across the top of the window is the hot text display and the large central text field is where the names of saved games are displayed. At the bottom of the window is a text field for entering the name of your saved game. Left-click in the bottom to type in filename up to eight characters long. Left-click on the Save Game button to save your game and return to the Game Map screen.

The button in the lower left corner is the End Turn button. Left-click on it to end this turn.

MacArthur returns to the Philippines at Leyte Gulf.

Allied Turn One

Watch closely to what the enemy units do and where they move to. After the computer attacks it is going to pull some units back out of direct contact. These are units that have been damaged or severely damaged. The computer is making them retreat to try and get replacements to them next turn. It knows not to send replacements to these units while they are in contact with your units, since the benefit of taking replacements is reduced when in contact with the enemy.

For example, if any of the computer's units remain in contact with your units, they cannot be restored to full strength.

Axis Turn Two

If the Allied turn went too fast for you, you can review the computer's turn using the Replay button from the Main Control set of buttons on the left side of the screen.

Crossing the Peyun Ho

The first thing you should do on your turn is engage his I-15 fighter plane with both of your fighters again. You may have a little trouble finding your fighters if the computer has had units retreat under them. Left-click on the bottom button on the right side, Toggle Air View On. This makes aircraft unit icons in any hex the larger icon.

U.S. Marines taking cover from Japanese fire on Tarawa.

Next you are going to want to bomb that 75 mm Howitzer unit again, so move one of your tactical bombers over the artillery unit and bomb it. Notice that the computer has moved a unit up to support the infantry in Tunghsien — bomb this unit with your second tactical bomber. When that attack is done, have your artillery unit in hex (8,2) attack the same unit that the bomber just attacked. Now have the 81st Hohei infantry in hex (7,2) attack it as well. This enemy unit should be badly damaged even though your attacks are weakened by attacking across the Peyun Ho river. If so, have your Type 94 tank unit in the city hex (9,4) move to hex (8,4) and attack the enemy unit and it should be pushed back. It may resist your assault, but do not worry, if it does you can continue the attack next turn after bombing it again..

The 81st Hohei infantry unit in hex (7,2) can still move, even though it has attacked, so move it to the hex the Chinese unit just retreated from. Bring your recon unit, 90th Type 93 Sumida, down one hex just to the right of the city. Now move your artillery unit in to support all three of your units there. This should make counterattacks unlikely, or very expensive until your next turn.

It is important to get as many units across the Peyun Ho river as soon as you can. Crossing river hexes without a bridge requires three turns, the first in moving up to the river, the next turn the unit moves onto the river hex which absorbs all remaining movement, on the last turn the unit may move off the river hex. While on the river hex, a unit is vulnerable.

Enter Wuching

Read the infantry unit in hex (10,5) and move it towards the river. Now move your 84th Engineers unit from hex (9,7), into the city hex of Wuching (8,7). The engineers could move farther, but in order to get "credit" for conquering the city, a unit must end its turn in that hex and the 84th Engineers is as close as anyone.

Take the 83rd Hohei infantry unit in hex (8,8) and move it to hex (8,6). Move the 89th Ho-Ni mobile artillery unit up to support both of these units. The 86th Type 95 tank in hex (7,8) should move forward and attack the nearest infantry unit unless it is supported by artillery — this is likely to make it retreat. Move the 85th Kihei infantry unit in hex (6,8) to hex (4,7) and have it attack the retreating infantry unit in hex (3,6). At this point you have two units left to move, the 94th G3M Nell tac bomber from hex (7,6) and the HW infantry from hex (2,8). You should consider using them to attack and hurt nearby enemy units, hopefully to destroy damaged units or to prevent them from getting replacements. Use the tac bomber to attack the Chinese 75mm Howitzer unit if there are no other likely targets.

Some things to remember. Try to bombard units in city hexes to lower their entrenchment, either with artillery or your tactical bombers. If you can keep an artillery piece behind your attacking units they will benefit from defensive fire if they are counterattacked. When an enemy unit is wounded, try to finish it off or at least keep one of your units in contact with it to keep it from receiving full replacements.

Transports

One of the infantry units in your roster, the 82nd Hohei is equipped with trucks. Units with transports can use them to increase their movement radius over identical units without trucks. When a unit with transports is selected, left-clicking a second time on the unit opens the Unit Control window. The Mount/Dismount button is located in the bottom row. Units with transports can be mounted automatically if they are ordered to move to a hex beyond their foot movement range. When a unit is going to automatically mount up, the mouse pointer changes from an arrow to an icon of a small truck. When the unit finishes its movement, it appears mounted in its form of transport, truck or half-track. Remember that units in transports are more vulnerable, so use this ability with care.

Allied Turn Two

The computer should continue the slow withdrawal towards Peking. It may attempt to lash out at a unit it feels is vulnerable, but few of your units should be in that position. Mostly it should retreat to establish entrenched positions around Peking.

Turns Three — Eight

Variable combat results and the computer's reaction to your force's advance make precise direction nearly impossible from here on out. If you followed the principles described for the two previous turns, and take advantage of tactics described following, your eventual conquest of Peking is all but assured.

Elite Replacements

Replacements

Special
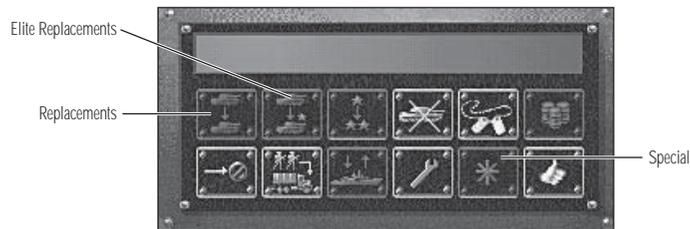
Reinforcing Damaged Units

Some of your units may have suffered serious casualties by this point. It is good practice to promptly reinforce units with low strengths by selecting the Replacements button on the Unit Menu. A unit can receive replacements only if it does not take any other action during the turn (except mounting or dismounting). If units have fallen below 8 strength points they should receive replacements.

Left-click on a unit you wish to give reinforcements to. Now, left-click on the unit a second time. The Unit Control window opens with two rows of buttons below a text display. As you move the mouse pointer over each button, hot text appears in the display. If a button is lighted, it can be used and the hot text displays in white — if a button is dim that function is unavailable and the hot text appears in red.

Move the cursor over the two buttons in the upper left. Both should be lighted, the leftmost is the Replacements button, next to it is the Elite Replacements button. Left-clicking on the Replacements button replaces lost strength points and automatically resupplies the unit with fuel and ammunition. Replacements begin with 0 experience, which is averaged with the unit's current experience to generate a new experience level. This option ends the unit's turn. Units can get replacements anywhere, except that air units can receive replacements only when over a friendly airfield or on board a carrier. A unit receives fewer replacements if an enemy unit is adjacent. If two enemy units are adjacent, the unit cannot receive any replacements unless it is in a city. Bad weather and desert terrain also reduce replacements. In between campaign scenarios, under-strength units are brought up to strength with elite replacements.

Elite Replacements are treated the same way as regular replacements except that: they do not reduce the unit's experience level and they cost four times as much. Although expensive, elite replacements are cheaper, point-for-point, than building a new unit with no experience.

Strengthening your infantry before the assault on Peking may delay the attack, but it gives you more time to drive away nearby enemy units and allows you to deploy your artillery in range of the city to commence a bombardment.
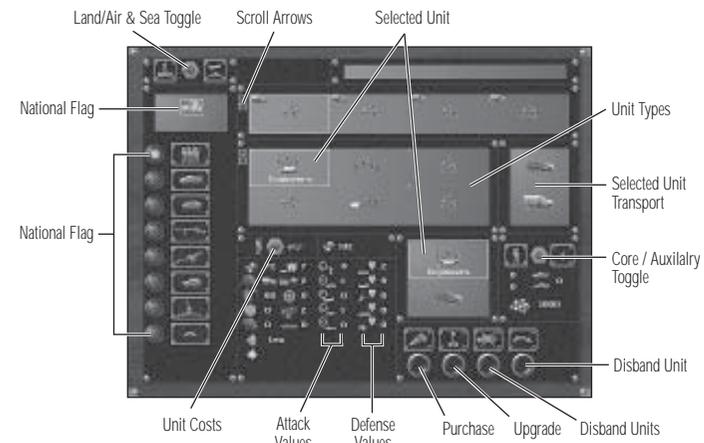
Land/Air & Sea Toggle
Scroll Arrows
Selected Unit
National Flag
Unit Types
Selected Unit Transport
National Flag
Core / Auxilalry Toggle
Disband Unit
Unit Costs
Attack Values
Defense Values
Purchase
Upgrade
Disband Units

Purchase a New Unit

Now might be an excellent time to bolster your forces by purchasing a new unit or two. Left-click on the Purchase Units button to open the Purchase screen.

Choosing Ground or Air Units

There are two toggle switches in the top right-hand corner, the Land/Air and Naval toggle switch changes the left-hand column of class buttons below it between land units or air and naval units. The Axis and Allies toggle switch changes between selecting troops for one side or the other in Battle Generator — while playing a scenario or campaign it does not function.

The class buttons, in a column down the left side of the screen, display the unit types available in a particular class in the Selection panel. For example, left-clicking on the infantry button displays five different types of infantry available at this period in the war — you can only purchase units that were in use at the time. The currently selected unit has a pale blue rectangle around it, and the unit type's statistics appear below. Once a unit has been paid for by left-clicking on the Purchase button, the unit appears in the Roster panel above the Selection panel. Arrows at the upper left of both Selection and Roster panels allow for scrolling through more units if they are available to be viewed.

On the far left-side, are the Purchase, Disband, and Go back to game buttons. Above these buttons is the cost of the currently selected unit, and above that is your prestige point total.

Once you have purchased a new unit, it must be deployed in a city hex, or one of the six hexes around a city hex, under your control. The Game Map screen reappears, the hexes which are legal for deployment are highlighted, and the mouse pointer changes to the deployment icon, The newly bought unit cannot move until the beginning of the turn after it was deployed.

For more information see the "Prestige Points and Purchasing Units" section on page 76.

U.S. Marines wade ashore at Tarawa.

Air Superiority and Weather

On turn three, if not before, your fighters should be able to eliminate the Chinese I-15 fighter. This should give your aircraft free reign over the battlefield. Use your tac bombers carefully, they have enough fuel to be active until the scenario's end, but since there are no airfields on the map they have no way to resupply after they run out of ammunition. For this turn, continue to attack enemy artillery units to reduce the effectiveness of their support.

Your fighters are also useful in delivering the finishing blow to weakened enemy units, although, they too have a limited supply of ammunition.

The only event that can prevent your effective use of air power is weather. In PACIFIC GENERAL, cloudy weather reduces air to ground attacks and air unit spotting to half of their rating. Rainy weather prevents all air to air and air to ground attacks, and reduces air spotting ranges to "1." See the "Weather Effects" section, starting on page 64, for more information.

Commit Your Forces Carefully

As your forces continue to drive on Peking, the computer's units are going to be forced into tighter formations. This can make them stronger by limiting the number of attacks you can make against units supported by artillery. Your task now is to attack methodically where possible. The computer has retreated into Nanyuan (4,5) and Fengtai (2,5) on the left flank in order to utilize their increased entrenchment values. On the right flank, if you have succeeded in driving into Tunghsien (6,3) be careful of launching a frontal assault on Peking until you can support your infantry, recon, and light tank units with artillery and tac bombers.

Take the time to bring your engineers up even though they are slow. They have the advantage of being able to ignore entrenchment levels in their attack. They are an expensive unit to replace, so be sure to have them fall back for replacements if they are damaged, rather than lose them. Keep your artillery units on the move as well, to continue to support your other units with barrages and supporting defensive fire. Even if they never fire a shot on defense, rest assured that the computer knows what their effects can be.

Plan your attacks to have several units in contact with an enemy at once if possible, this form of "massed attack" improves the odds significantly in your unit's favor. To perform a massed attack, move all the units taking part adjacent to the target unit. This may mean moving units up without attacking, so as to be able to attack next turn. If an enemy unit retreats after combat, remember that you can re-select a unit that has attacked and not moved yet to stay in contact, limiting the enemy unit's ability to take replacements.

Tactics Checklist

Remember the following in any scenario you play:

- When a unit attacks, it uses one unit of ammo. When it's out of ammo, it can't attack another unit, and must resupply (when not adjacent to an enemy unit).

- Cities secondary to your battle objectives should only be attacked if in the direct path of your units. On the other hand, in later scenarios, risking units to capture other cities gains you more prestige points.

- All units have movement points which are expended as the unit moves. Each hex costs a number of movement points, based on the type of terrain entered. When you select a unit, the legal hexes that unit may move to are highlighted. When you move units across rivers without using available roads or crossings, all movement points for those units are used.

- Check your units' ammo frequently, and if low, resupply.

- Replace weakened units even when they are close to enemy positions. It's better to suffer loss than annihilation.

- Use "massed attacks," with more than one adjacent unit, to improve the odds against strong or well entrenched units.

- Mount units which have transports whenever possible, but be sure there is armored protection close by. A given unit can only embark on a naval transport at a port or coastal city. Only infantry, light artillery, and light anti-tank units may use air transports at an airfield. Embarking or disembarking a unit can only be done at the beginning of the unit's turn. Naval transport units can disembark into an adjacent land square, air transport can only disembark at airports, while para-troopers can disembark anywhere. Disembarking ends the unit's turn.

- Replacements, Disband, Upgrade, and Elite Replacements can only be done at the beginning of the unit's turn. If any of these options are chosen, the unit's turn ends.

- Cancel Move returns a unit to pre-order status in the hex it was in before the latest move, and cannot be used after the unit has acted by attacking, resupplying, receiving replacements, or spotted enemy units. If you right-click after moving a unit it deducts one movement point from that unit's current total.

- Even though the "combat results" may not be in your favor, you may still need to sacrifice some of your unit strength to achieve your goals. This is especially important when attacking enemy units with high entrenchment levels. Even though the attack may not be effective, the enemy entrenchment level lowers at least one point, and is more vulnerable the next turn.

- The enemy cannot place newly-purchased units around its cities if you have a unit adjacent to the city.

- If a unit is forced to retreat as a result of combat, but has nowhere to retreat to, it surrenders and is eliminated instead.

These tactics are your best tools to vanquish your enemies! Other tactics on game play in general can be found in the "Strategy Notes" section, beginning on page 96.

Naval Tutorial

The first thing you notice is that there is a noticeable difference in the Game Map screen display for the Allied side from the Axis side — where the Axis screen edge was wood grain and illuminated paper, the Allied side is riveted metal. The button icons themselves are very similar, however, since the functions have not changed.

The scenario for the naval tutorial switches sides, you play the Allies in the form of a US naval task force that encounters a similar Japanese battlegroup in the South Pacific. The naval combat is as much a battle for who controls the air as who controls the sea. Both forces in this scenario have aircraft carriers equipped with fighters and dive bombers. There are no "victory hexes" in this scenario, nothing to occupy. The victor is the player with ships still afloat.

Capital Ships

Some naval units are considered "capital ships" — this includes aircraft carriers, battleships, heavy cruisers, and submarines. Capital ships have 15 strength points, submarines have 10. When a surface capital ship is attacked, it returns fire as normal against its first opponent. Every subsequent attack on the ship during the same turn, the return fire is 1/2 of the attack value.

Light cruisers, destroyer groups, and transports are all treated the same as regular land and air units, they can use prestige points to receive replacements or elite replacements and are immune to critical hits.

Capital ships are subject to two new rules for combat results: wounds versus kills and critical hits.

Normal Combat Damage

In order to simulate naval combat and the remarkable durability of capital ships more effectively, they are subject to two kinds of normal combat damage, wounds and kills. When a capital ship takes damage, the combat results window shows two results. Any combination of wounds and kills exceeding a unit's current strength destroys it. The first number, next to the exploding ship icon, are strength points killed. These are identical to strength points lost by air or ground units except that capital ships cannot replace them. The second number are wounds, which can be recovered by using the repair button.

Numbers next to this icon indicate strength point losses killed.

Numbers next to this icon indicate strength point losses wounded.

Numbers next to this icon indicate strength point losses for non-capital ship classes: destroyers, light cruisers, and transports.

Critical Hits

Any time a capital ship is damaged in combat it has a chance to suffer a critical hit. Critical hits represent special damage done by a lucky hit that has a variety of effects, from engine room hits that limit mobility, to magazine hits that cause substantial additional damage. When a critical hit is scored, a message appears in the text field of the combat results display, and the affected unit has a small red marker appear next to its strength indicator. The type of critical hit is also listed in the unit statistics display which can be opened by right-clicking on the unit. Critical hits last for a number of turns based on the severity of the damage. For more information see the "Critical Hits" section starting on page 79.

Allied Turn One
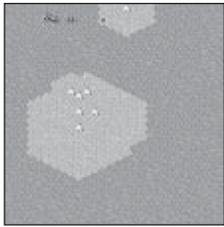
The first thing to do is to left-click on the Toggle Strategic Map On button, second button from the bottom on the right-hand side Options Controls, to reveal what the enemy is up to. You can see a grouping of six stars representing your ships in the center of the map, and a single star opposite a red circle near the top of the map. Left-click on the red circle to jump to that unit. When the Game Map screen reappears, there is a Japanese carrier, the *Hosho*, and a US *Gato* class submarine. No other enemy units are visible.

This can be remedied by using the Toggle Hidden Units Off control, also found on the Options Control on the right-hand side. Left-clicking on this button reveals that an entire Japanese battlegroup waits just outside the submarine's spotting range, and a Japanese heavy cruiser, the *Mogami* is just over the horizon from US Desron 1 and Desron 2!

Engage the heavy cruiser *Mogami* at hex (10,10) by moving the Desron 1 from (11,12) to (11,10), and pass the cursor over the enemy ship to check the projected results. At six to one, the results are not optimal for Desron 1.

Replay   Unit Information Panel

Status Bar
Replacements
Elite Replacements
Upgrade
Disband
Rename
Supply
Cancel Move
Mount
Embark
Repair
Special

Weather Panel
Hide / Show AI Move
Hide / Show AI Units
Hide / Show Hex Grid
Show Terrain
Supply Rules On/Off
Weather Rules On/Off
Hide Show Unit Strength
Next Unit
Goto Unit Screen
View Strategic Map
View Air / Surface Units

Option Control   Units   Option Control

Massed Attack

In PACIFIC GENERAL there is a feature called the "massed attack" — the more friendly units you have around an enemy unit, the better they fight. Before actually attacking the *Mogami*, move the other Desron from (9,12) to (9,10) and the light cruiser *Brooklyn* from (10,13) to (10,11). Just to be safe, move the heavy cruiser *Wichita* from (12,15) to (11,9) and check the projected results again. Notice how the projected results have swung in your favor, changing to one to five from six to one. The time is right to attack with the heavy cruiser *Wichita*, the destroyer groups, and the light cruiser, in that order.

There's a good chance that the enemy ship will survive the awesome punishment your ships have delivered, so select the SBD Dauntless dive bomber at (15,16), fly it directly over the enemy ship and bombs away! That should have them scrambling for the lifeboats. If the *Mogami* is still clinging tenaciously to life, move the TBF Avenger at (4,16) to (9,9) and you can dive bomb it by attacking from the adjacent hex, a special ability of torpedo bombers.
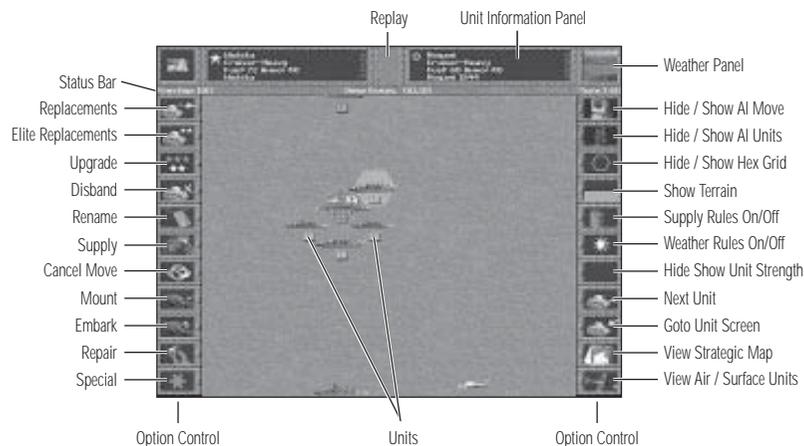
The next step in your offensive is to wreak as much havoc as possible on the rest of the Axis fleet. Move the battleship *Montana* from (10,15) to (8,10). Notice that it can attack any ship in its seven hex range. The battleship *Kongo* at (12,16) is the most powerful ship in their force, so that is your target.

Submarine Sneak Attack

The *Gato* submarine has a special ability. It can submerge to make an attack and possibly evade retaliation. Select the submarine at (16,2), and bring up the Unit Menu. Left-click on the Submerge button, which doubles for the Mount Transport button. On the Game Map, the submarine unit icon turns into a periscope to indicate the submarine is submerged. Move it to (14,3) and attack the carrier in (13,3). This is unlikely to sink it, but the submarine may score a critical hit, and slow it down. Surfaced submarines can be attacked by any unit, only destroyers can attack submerged submarines.

Air Cover

All our ships have been moved, so let's give them some air support to protect them from enemy retaliation. Move the three Tigercat fighters from (13,15 (14,15) and (15,15) to (8,9) (10,9) and (12,9). The carrier *Midway* at (10,17) is going to be needed to re-supply the planes, but first we have to protect it. To do this we'll put the fighter at (11,16) on Combat Air Patrol (CAP). Select the fighter and left click on it to bring up the Unit Controls. Click on Special. The plane now has a blue dot next to its strength indicator to show that it is on CAP. Select the *Midway* and move it to (8,12) and the fighter travels with it, providing defense against the first fighter attack to be made on this carrier. Once a fighter on CAP has intercepted an enemy plane, it goes off CAP to be able to attack normally in its turn or be placed back on CAP as a defender. Air units that move without attacking can be placed on CAP, but not after they have made an attack.

Our final action for this turn will be to launch the TBF Avenger that is on the *Midway*. You can tell that the *Midway* has planes in its hangars because of the blue dot next to its strength indicator, just like the CAP marker. Select the carrier, then left-click on it to bring up the Unit Control window. Left-click on the Special button and the Hangar display appears. On the *Midway* there are seven hangars, only one of which has a plane in it. Left-click on the plane to select it, then click on the Launch plane button to get it airborne — have it fly to (8,10).

Saving a Game and Ending the Turn

The button in the upper right corner is the Save Game button. Left-clicking on it opens the Load/Save window. The text line across the top of the window is the hot text display, the large central text field is where the names of saved games are displayed. At the bottom of the window is a text field for entering the name of your saved game. Left-click in the field at the bottom to type in a filename up to eight characters long. Left-click on the Save Game button to save your game and return to the Game Map screen.

The button in the lower left corner is the End Turn button. Left-click on it to end this turn.

Axis Turn One

The Japanese are going to retaliate, by direct fire from the light cruiser *Agano* and battleship *Kongo*, and with Zeros and Val dive bombers from the *Hosho* and *Kaga*. The two carriers try to break contact (which is impossible since the enemy's moves have been made visible). Your submarine is likely to receive the direct attentions of Japanese Desrons 1 and 2 but by having it attack submerged, it has a decent chance to evade. Some of these actions may not happen if your units have been lucky enough to score a critical hit, the *Hosho* may be dead in the water, or forced to move at a reduced rate.

Allied Turn Two

First, examine your units to determine if any of them have been seriously damaged or suffered critical hits.

Damage Control

Capital ships are equipped with damage control teams which are capable of repairing from zero to three wound results every turn, and have a chance to reduce the effects of a critical hit. Damage control happens automatically and has no effect on the unit's ability to move or fight other than the increase in strength points. In addition, an option from the Unit Controls makes it possible for capital ships to perform repairs while at sea, which can relieve the effects of critical hits.

Repairs

Left-clicking on the Repair button uses the unit's entire movement allotment, much as taking replacements or elite replacements does for other units. The Repair function repairs one additional wound that turn as well as reducing up to two turns from the effects of a critical hit.

Counterattack

The first thing to do is clear the skies of those pesky Zeros. Use the Toggle Air View button to make all aircraft units visible, then move a Tigercat fighter to attack the nearest Zero. If one of your fighters is seriously damaged after it attacks, fly it directly over the *Midway* where it disappears. It has now landed on the carrier, and next turn you can repair it. Next, move your other Tigercat fighters and attack the remaining Zeros. If either enemy fighter survives, it is likely to have to retreat for repairs. Try to pin the enemy bomber between your fighters, and it will not be able to move more than one hex on the next turn. Move the Dauntless SBD tac bomber from (10,10) directly over the enemy battleship, and bomb it. Time to take care of the light cruiser *Agano* as well. Attack it with the TBF Avenger torpedo bomber at (8,10), you may have to attack it from an adjacent hex.

Remember that any time you launch a plane from a carrier, either the plane must move from over the carrier, or the carrier must move from under the plane in order to perform any successive launches.

Finish off the *Agano* with the fire from the *Montana* . After firing, move your battleship to (11,15). Move the Wichita heavy cruiser to (10,5) and attack the Japanese Desron 1 if it is within range. Now move your Desron 2 from (11,10) to (13,1) and attack the other destroyer group. Then move your other destroyer group to (12,5), the light cruiser *Brooklyn* to (10,7), and the *Midway* to (11,7). Move your sub to (15,1) and attack the *Hosho* again. End your turn.

Axis Turn Two

The computer has now lost most or all of its air power, the *Mogami* and the *Agano* are either sunk or badly damaged as are the *Hosho* and *Kongo*. Even if the *Kongo* is crippled, it is important to remember that the carriers are more valuable targets which should be pursued. The Japanese are unlikely to be able to do any serious damage this turn, but may be able to repair damage done in order to continue the battle.

Turns Three — Eight

The first thing for this turn is to repair any damaged aircraft on board the *Midway*. Select the carrier, and left-click on it again to open the Unit Control window and click on the Special button. The Hangar display appears showing the injured fighter in one of the hanger boxes. Left-click on the fighter to select it, and again to open the Unit Control window for the fighter. You can now give the fighter replacements or elite replacements if you have the prestige points. This ends the fighter's turn, but it becomes available at full strength next turn.

 Use your three remaining Fighters to attack any surviving Zeros, and to attack the enemy Val dive bomber (remembering to box it in again, in case it survives). Use the submarine to attack the wounded carrier again. Move the *Montana* to (12,3) and attack the aircraft carrier *Hosho* at (14,4). Leave the carrier *Midway* where it is, but use the rest of your ships to surround and attack the remaining ships of the enemy fleet.

Remember the following naval tactics:

- Protect your carriers with fighters placed on combat air patrol (CAP). Reassign fighters to CAP if they successfully intercept an enemy plane.
- Use "massed attacks" to improve the odds in attacks on larger enemy ships.
- Torpedo bombers can attack from an adjacent sea hex (not land).
- Submarines can move and attack submerged, giving them the benefit of a surprise attack and immunity to attacks by units other than destroyers.
- Your dive- and torpedo bombers should be used to finish off any surviving enemy ships.
- If any of your ships suffer critical hits, take the time to use the Repair control.
- Take replacements for damaged destroyers, light cruisers, and aircraft.
- Planes must be on board an aircraft carrier at the beginning of a turn to take replacements or elite replacements.

PACIFIC GENERAL SCREEN OPTIONS

The Pacific General screen is the first screen displayed and presents eight options in the form of rectangular buttons. From this screen you are able to:

- Start a Campaign game to fight the war as the Allies or the Axis.
- Start a Scenario to play a particular battle either against the computer, or against a human player, in person or via Email.
- Start the Battle Generator to create or modify a scenario.
- Start the Tutorial scenarios.
- Open the Unit Information database.
- Start a Multi-player game to play a scenario over an IPX network, the Internet, or using a modem via direct connection.
- Load a saved regular or Email game.
- Quit and return to the operating system.

THE CAMPAIGN SELECTION WINDOW

There are two campaigns in Pacific General: Axis and Allied. Each campaign is made up of several scenarios based on historic battles from World War II. Each campaign can proceed beyond the purely historical to include some "What If?" scenarios.

In a campaign game, you control a "core group" of units and, in most battles, non-core or "auxiliary" units. The core group's strength indicators feature black numbers while auxiliary units' strength indicators have white numbers. Auxiliary units serve with you only for the duration of a battle, while surviving core units are carried forward to successive campaign battles. Your core units gain combat experience and can be upgraded with new equipment as it becomes available.

Your core units are deployed for you in the first scenario of any campaign. In later campaign scenarios, you may deploy your core units freely within designated deployment zones.

Select the campaign you wish to play by clicking on the left side of the screen to play the Allies, which consist of US, British and Australian forces in the Pacific, and on the right side of the screen to play the Axis, represented largely by the Japanese. The button at the bottom of the screen begins the Campaign game or returns to the main screen.

Japanese Campaign

The Japanese campaign is the introductory campaign to the game, providing an easy sub-campaign in China. From here, the options grow more difficult — do your forces attack the US at Pearl Harbor or maintain their attention on the Asian continent to secure resources?

As quickly as possible, the Japanese player must seize the areas which will provide the resources needed to sustain their grasp at empire. Then they must eliminate the British in India, neutralize the Australians, and seize the US naval bases east of Australia from which a US counter-offensive could be staged. Eventually, they must cut off easy access to the Pacific, secure Hawaii as an invasion hub, and then, if the Divine Wind has been kind to them, take the battle to America.

Allied Campaign

Playing predominately as the American forces, the Allied player is forced up against the wall at the onset of the campaign. Tough Japanese forces, hardened by several years of battle experience, will look to destroy the remnant of the Pacific presence left after the mass destruction of Pearl Harbor. The Allied campaign has fewer sub-campaigns than the Japanese and your main thrust is through the Pacific to attack Japan itself.

Though Japanese forces will be superior at the onset, they cannot be replaced as readily as US forces. In order to be successful, the US player must attempt to eliminate the Japanese carrier groups. Naval battles at first can be risky as ships cannot be replaced, but by 1943 the naval edge both in quality and quantity will be theirs. Patience is be the best weapon the US has as the Japanese are be well entrenched throughout the islands of the Pacific. Rushing in where angels fear to tread will result in massive casualties while a well planned, thoughtful assault can accomplish the goal with minimal losses. As long as losses are reasonable, time is on the US player's side.

As the American campaign proceeds, high troop casualties have an increasing impact on your prestige rewards. The losses your troops suffer (even if you achieve victory in a scenario), has an impact on the amount of prestige you receive for your next scenario. This reflects the "home front" and the American ability to stomach the war.

Once a campaign has been chosen, left-clicking on the Next button opens to the Setup screen.
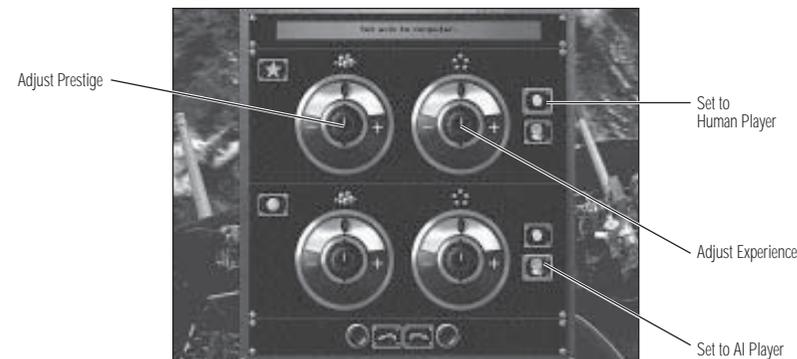
THE SETUP SCREEN

Whether you are playing one scenario or an entire campaign, one of the first and most important decisions you need to make occurs on this screen. The two sets of dials on this screen modify the amount of starting prestige points and experience each side has. The range of settings for these dials is -2 to +2.

Prestige

The values on the prestige dial modify the amount of prestige that a player gets whenever there is a prestige award. Setting the dial to -2 causes the award value set to be 50% while setting the dial to +2 causes the award to be doubled. The effects of the -1 and +1 settings are not as severe — a decrease of 20% at -1 and a 25% increase at +1.

Experience

The experience preference is more straightforward. The value set on the dial is subtracted from or added to the experience level for new troops purchased during the scenario, which is an average of the experience of all of the units on that side. For example, if the average experience level was two, and the dial was set to -1, then the net experience for new units would be one. The experience level of a new unit is never less than zero.

Human or Computer Opponent

This screen is also where you select to play against an AI player or another human by clicking on the Human or AI icons appearing on the right side of the screen.

Campaign games can only be played against the computer.

Next and Previous Buttons

The Next button starts the scenario or campaign by changing to the Game Map screen — for details about actual game play, see both the "Tutorial/Quick Start" section starting on page 7 and the "Game Map Controls, Windows, and Buttons" section, starting on page 50.

The Previous button returns to the Choose Scenario screen.

Scenario Description

Scenario List

Rotate Globe

Load Homemade Scenario

Play-By-Email

Forward to Setup

Back to Title Screen

THE CHOOSE SCENARIO SCREEN

The Choose Scenario screen provides a list of scenarios on the left-hand side, and displays a globe indicating where each scenario takes place with one of two kinds of icons. Allied scenarios are indicated by a gold star, Axis scenarios are indicated by a red "Rising Sun."

The globe's rotation can be halted by left clicking on the globe itself, and the globe can be turned by using the mouse to highlight one of the rotation arrows in the lower-right corner of the globe panel and clicking on it to spin the globe to the left or right.

Individual icons on the globe can be selected by clicking on them, and the globe automatically rotates to present the location of a scenario selected by using the list of scenarios.

Load Scenario

This control opens a window from which you can load a scenario created using the PACIFIC GENERAL Battle Generator.

Start Email Game

This starts the currently selected scenario as a "play by Email game" (PBEM). See the "Playing PACIFIC GENERAL by Email" section starting on page 61 for more details.

Next and Previous Buttons

The Next button proceeds to the Setup screen, while the Previous button returns to the PACIFIC GENERAL screen.

Allied / Axis Toggle   Weather   Ground Conditions

Starting Prestige
Reinforcements

AI Stance

Transports Available
Air / Sea Transport Toggle

Victory Conditions

AI Bucket

Primary Nation

Date

Turn Options

Starting Side

Latitude

Load Map

Edit Scenario Title

Edit Description

Forward to Purchase Screen

Select Adversary   Day / Night Turns   Toggle Axis Facing   Back to Title Screen
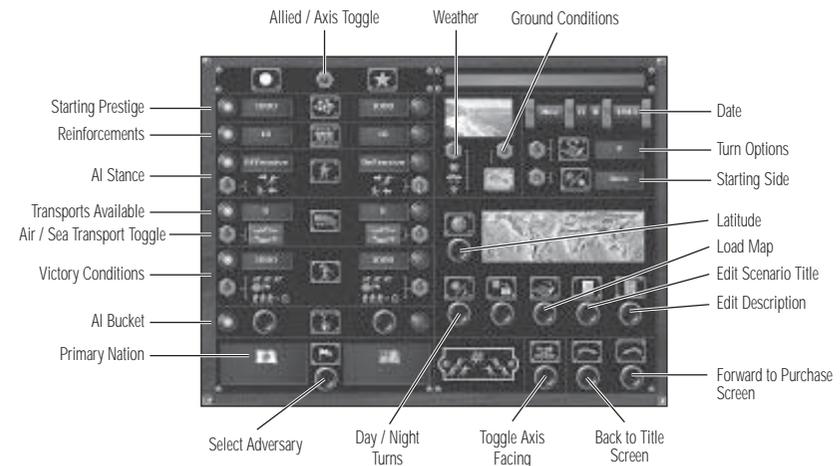
THE BATTLE GENERATOR

The Battle Generator can be used to design and save scenarios other than those found on the PACIFIC GENERAL game CD using pre-existing map files from PACIFIC GENERAL, PANZER GENERAL, and ALLIED GENERAL. Existing scenarios can be modified as well, although they should be saved under another name in order to preserve their place in the campaign structure.

The Battle Generator is a powerful tool, which offers many options for creating or customizing scenarios. Because of this, the description for the Battle Generator comes in two parts. The first part contains the "Battle Generator Screen Controls," "Battle Generator Purchase Screen," and the "Battle Generator Editor Screen." Each section describes the options and settings of that screen. The second part, "Building a Scenario" goes through the basic steps of building a scenario and suggests how some options can alter game play.

Battle Generator Setup Screen Controls

The Battle Generator screen is divided roughly into two sets of controls. The right side of the screen controls more global options such as weather, date, number of turns, and whether the Axis or Allied side has the first turn. The left side of the screen contains several options which relate to either side of the scenario such as starting prestige point allotment, reinforcements, and victory conditions. The options on the left side are equipped with signal lights that indicate when a setting has been altered, even if no real change has been made. If a setting has been changed, the signal light changes from amber to green.

Adversary Options

At the top of the left hand side of the screen are icons for the Axis side and the Allied side separated by a toggle switch. Left-clicking on the switch selects either the Axis or the Allies to be configured for the battle being generated. The active side is indicated by the amber or green lights next to each option.

Starting Prestige

This setting controls the number of prestige points available to purchase units, supply units, and provide replacements or elite replacements once the scenario starts. Starting prestige points can be set from 0 to 9999 for either side by left-clicking in the number field and typing the number desired.

Set Reinforcements

This number represents the number of additional units the player can purchase after the scenario begins, using the prestige entered in the Starting Prestige field. The number of reinforcements are set by left-clicking in the number field in order to type the number desired between 0 and 99 and pressing the Enter key or left-clicking on the button at the bottom of the window.

Set Stance

This setting adjusts the stance for the AI controlled player, either Aggressive or Defensive, by left-clicking on the switch. If set to Aggressive, the AI player's main focus is to capture all victory hexes and it attacks more aggressively in order to do so. If set to Defensive, the AI player attacks and moves in order to defend its victory hexes and uses its forces as garrison troops more often.

Assign Transports

There are two types of transport points to assign in PACIFIC GENERAL: airborne and naval. Left-clicking on the switch below the status light selects between airborne and naval transport points. Left-clicking on the number field allows the number of transport points for each type to be set between 0 and 9.

There are two buttons next to the switches — one displaying a ship and one displaying an airplane. Left-clicking on these buttons opens a window where the type of transport can be chosen if that nation has more than one available. There can be up to three types of transport for any country, and left-clicking on the transport icon displays a list of that unit's statistics. Clicking on the Done button returns to the Battle Generator Setup screen.

Ground units which are deployed at sea or paratroopers deployed in the air are treated as having "one-use" transports which do not count against the transport point total set with this control.

Set Victory Conditions

The victory conditions for a PACIFIC GENERAL scenario can be established as one of three types of conditions, or a combination of the three. Victory can be set to be determined by the number of points lost, the number of victory hexes lost, or the number of units left alive. If you wish a particular condition to have no effect, set it to zero or some other extraordinary value to make the chance of that condition being met unrealistic.

Points Needed to Lose

Left-click on the number field to make the field active. When the value of victory hexes lost plus 10% of the prestige point cost of units lost exceeds this number, the scenario ends. The totals are compared for each player's points, and that ratio determines whether one side has a major or minor victory, or a loss. This value should be high because many units cost multiple hundreds of points, notably aircraft and naval units. A low value may end the scenario prematurely.

Victory Hexes Remaining

Left-click on the number field to make the field active. Based on this setting, the scenario ends if the number of victory hexes held by the phasing side drops below what is entered in the number field. If this number is "0," then victory hexes are unimportant and the main way to win is to destroy your opponents units. If this value is "1" or greater, then the focus of this scenario is capturing important real estate.

Units Remaining

The number set in this field establishes the minimum units that must remain active in order not to lose the scenario. Any more units lost by a side than this means the scenario ends in a loss for that side.
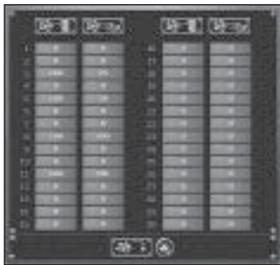
Set AI Bucket

The AI Bucket function is a system of rewarding the AI player for successful play and providing a steady supply of prestige points. The two kinds of prestige point awards are AI rewards and scenario awards. There are two columns of number fields for each of the thirty turns of any scenario. The value generated by these two settings is added together each turn, with the minimum being 0. The rectangular button at the bottom of the window sets the fields in the AI rewards column to 100 and the fields in the scenario rewards column to 50.

The fields in the right-hand column represent an AI reward prestige setting. The AI player is rewarded with an amount of prestige points based on the value in this field times the percentage of starting victory hexes held. If the number in this field were 100, and the AI held one of ten starting victory hexes at the end of your turn, then the AI would receive a 10 prestige point award at the beginning of its next turn. This setting is used to reward an AI player on the *defensive* for holding victory objectives.

The field in the left-hand column represents the scenario award, a set amount awarded to the all players at that particulars point in the scenario. This represents periodic resupply.

If the AI Player has excess prestige points available at the beginning of a turn where an AI award is due, those prestige points are lost. An AI player spends prestige as quickly as it can, so this is not really a disadvantage.

Using the AI Bucket

For example, the scenario is twelve turns long where there are eleven victory hexes on the map, one owned by the Allied side, the other ten controlled by a defending Axis player. The Allied player moves first. The AI Bucket settings are as follows:

AXIS	AI REWARD	SCENARIO REWARD	ALLIES	AI REWARD	SCENARIO REWARD
Turn #2	200	25	Turn #3	100	50
Turn #5	200	50	Turn #5	100	50
Turn #8	200	100	Turn #7	100	50
Turn #11	200	150	Turn #9	100	50x

These settings have different results depending on which side is being played by the computer. The following examples demonstrate the possible rewards that the computer player might get based on which side the human player has chosen. The first example has the Allied side being played by a human against the computer.

Human Allied vs. Computer Axis

On turn one, the Allied player captures an objective hex. At the beginning of the Axis turn two it loses any leftover prestige then it receives 25 prestige plus 90% of 200 for a total of 180. On Allied turn three, the human player gets 50 prestige.

By turn four the Allies capture two more objective hexes. On turn five, the Axis again loses any leftover prestige, and gains 50 plus 70% of 200 for a total of 190.

By turn seven the Allies capture three more objective hexes. On turn eight, the Axis again loses any leftover prestige, and gains 100 plus 40% of 200 for a total of 180.

On turn ten the Axis resistance stiffens (or they get lucky) and they re-capture one objective hex. On turn eleven, the Axis again loses any leftover prestige, and gains 150 plus 50% of 200 for a total of 250.

Human Axis vs. Computer Allied

On turns one and two the computer captures two objectives. At the beginning of Allied turn three it loses any leftover prestige, then it receives 50 plus 100% of 100 for a total of 150. There is no bonus points for having more than your starting hexes.

On turns three and four the Allies capture two more objective hexes. On turn five, the Allies again lose any leftover prestige, and gains 50 plus 100% of 100 for a total of 150.

By turn six the Allies capture three more objective hexes. On turn seven, the Axis again loses any leftover prestige, and gains 50 plus 100% of 100 for a total of 150.

On turns seven and eight the Allies capture only one objective hex. On turn nine, the Axis again loses any leftover prestige, and gains 50 plus of 100 for a total of 150.

As you can see, this a very powerful tool for balancing scenarios when the AI player is on the defensive. The first example simulates a situation where the High Command increased supply to an area in order to stiffen resistance to an assault. Had the scenario rewards been smaller, as for the Allies in the second example, or diminished over time rather than increasing, the amount of prestige awarded to the AI player would decline dramatically.

Select Adversaries

Troops of up to five nationalities can be selected to fight on either side. Left-clicking on this button opens a window with the flags of all of the nationalities represented in PACIFIC GENERAL. The default nations are Japan for the Axis side and the US for the Allied side.

Clicking on the round button for this setting opens a window which displays flags representing all of the nations found in PACIFIC GENERAL. Left-clicking on a flag selects that nation as a participant in your scenario — this is indicated by a blue rectangle around the flag. Once all the nations have been selected, the Done button closes the window and displays the flags you have selected with one displayed above the others. That nation is "primary," all "ownership" flags appearing in cities on the map belonging to that side are those of the primary nation. These can be changed using the Nation Hexer and Victory Hexer controls described on the "Battle Generator Screen Deploy Screen" section starting on page 41.

Once the window closes, all of the flags for a particular side appear in the display. The positions of primary and secondary nations can be changed by left-clicking on one of the lower flag icons, which cycles it into the primary position.

Global Options

These options affect the scenario being generated as a whole, rather than one side or the other.

Date

The range of dates for possible scenarios are from January 01, 1937 to December 31, 1946. PACIFIC GENERAL checks the date when adjusting the weather, so it is unlikely to find snow in June! The date also affects the availability of special abilities and technologies for some units because they represent advances in technology or training made during the war's later years.

Weather

This switch has three settings, which determines the starting weather of the scenario. See the "Weather Effects on Supply" section on page 75 for more information about the effects of weather.

Starting Ground Conditions

This switch has three settings, for selecting the ground conditions of Normal, Muddy or Snowy. Depending on the weather that occurs during the rest of the scenario, ground conditions can improve or worsen as the scenario proceeds.

Scenario Turn Variables

Using this switch and the associated number field, each scenario you create can be set for up to 30 turns and those turns can be set to any length desired, from hours to days.

Scenario Length in Turns

This setting can between 1 and 30 turns.

Turns Per Day

This setting varies the number of turns per day, if you want a turn to represent less than one full day. Use of this setting is advised if you wish some of the turns to take place at night. See the "Edit Day/Night Rounds" section, starting on page 39, for more details.

Days Per Turn

This control allows one turn to represent more than one day for scenarios meant to cover longer periods.

Player Sequence

This setting can be toggled between Allied and Axis players to determine which side has the first opportunity to move.

Latitude Selection

This switch selects one of eight latitude groups. These groups govern the probability of a particular kind of weather happening during the scenario. For example only extreme latitudes are likely to ever have snow, and desert latitudes are much less likely to have rain than tropical ones.

Edit Day/Night Rounds

This option permits any turn to be designated as a "Night" turn. Obviously, this would be best used in scenarios where one turn is less than one day. Clicking in the field for each turn toggles between Night and Day. On night turns, the combat effects described in the "Night Turns" section, starting on page 63, are in effect.

Load Scenario

This button opens a window that allows a scenario to be loaded for manipulation using the Battle Generator.

Load Map

This button opens a window that allows a map to be loaded for use in creating a Battle Generator scenario. There are over 30 maps included for your use, including maps from the original PANZER GENERAL, and its companion game ALLIED GENERAL in addition to maps from PACIFIC GENERAL.

Edit Scenario Title

This button opens a window for editing the name of the scenario where it appears on the Load Scenario screen.

Edit Scenario Text

This button opens a window where briefing text can be entered for the next user of this scenario.

Toggle Axis Facing

This swaps the facing of Axis units so that they are facing the direction they are advancing towards or defending from. Allied units always face the opposite direction of the Axis.

Next and Previous Buttons

The Next button proceeds to the Battle Generator Purchase screen, while the Previous button returns to the PACIFIC GENERAL screen.
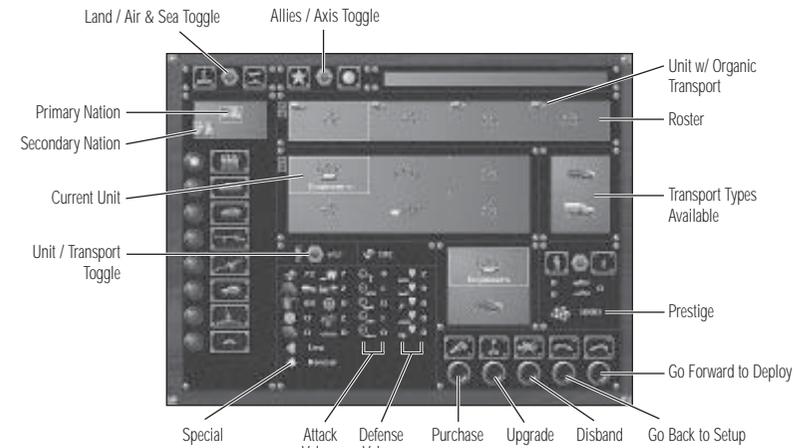
Battle Generator Purchase Screen Controls

The Battle Generator Purchase screen functions similarly to the regular PACIFIC GENERAL purchase screen, with some exceptions. There are no limits to what you can buy other than by date! In other words, there is no prestige point cost for units chosen when building a scenario, only the scenario date can prevent some units from being purchased before they were available. Of course, if you set the date late enough, there are no limits whatsoever.

Another difference is that the toggle that allows you to Purchase units as core or Purchase units as auxiliary does not function. In essence, there is no difference between core and auxiliary, since no units are carried on beyond the end of the particular battle you are creating. Once the scenario begins, the number of units available is determined by the value set in the Reinforcements field on the Battle Generator Setups screen.

You can also select troops for any secondary nations by left-clicking on the flag if it appears in the nation flag panel in the upper-left corner. If the forces to be used included troops from more than one nationality, left-clicking on a particular unit in the roster panel switches the active nation to that of the unit's nation.

The Land/Air and Naval toggle switch changes the left-hand column of class buttons between land units or air and naval units.

The Axis and Allies toggle switch changes between selecting troops for one side or the other.

The class buttons display from one to several different types of units in the Selection panel. The currently selected unit has a pale blue rectangle around it, and the unit type's statistics appear below. Once a unit has been selected using the Purchase button, it appears in the Roster panel above the Selection panel. Arrows at the upper left of both Selection and Roster panels allow for scrolling through more units if they are available to be viewed.

To the right of the statistics panel, are three smaller panels. If a selected unit is capable of having "organic" transport such as a truck or half-track, it appears in the first of these panels. The unit type itself appears in the second panel. If organic transport is purchased for a unit, it appears in the bottom panel when the unit is selected from the roster panel.

On the far right-side, are the Purchase, Disband, Next and Previous screen buttons. Above these are the displays for the current prestige total, the starting prestige total, and the Core and Auxiliary Units

This screen operates similarly to the regular Purchase screen. For more information see the "Prestige Points and Purchasing Units" section on page 76.

Next and Previous Buttons

The Next button proceeds to the Battle Generator Edit screen, while the Previous button returns to the Battle Generator Setup screen.

Battle Generator Deploy Screen Controls

Once troops for both sides have been selected the final step is to plan troop placement and establish victory conditions for the scenario. The Edit screen displays the map that was selected using the Load Map option described on page 39. Down the right side of the map are the mode controls which allow you to perform a variety of modifications to the map, and the unit controls which allow you to edit any, all or no units. Across the top of the map screen are two panels and a large button in the far, upper-right corner for changing which side is being manipulated.

Roster Panel

The panel in the upper left corner contains all the units that were purchased for the active side, Allies or Axis, with an indicator square around the next unit to be placed.

Unit Information Panel

To the right of the Unit panel is a panel with important pieces of information about the currently selected unit. The top line contains the unit's strength which usually starts at "10" but can be adjusted up or down on this screen. Next to that is the unit's prestige point cost. The second line shows the unit's current level of entrenchment which starts at "0," but can vary upwards depending on where it is deployed — entrenchment can also be increased or decreased using another control found on this screen. The third line lists the unit's current "name" which can be changed now if you wish, or once play begins. The bottom line lists the unit's experience level which is also adjustable on this screen.

Allies/Axis Button

The button in the upper-right corner toggles which side is available to be manipulated, Allies or Axis. In order to switch from one side to the other, merely left click on this button to switch.

Status Bar

Just below the Roster and Unit Information panels is a bar which displays the current mode above the left screen edge column of buttons. These legends for these modes include Lay Unit, Victory Hex, Deploy Hex, Nation Hex, Toggle Owner and Edit Unit. Each mode is described in a section following. Information about the hex the mouse pointer is over is displayed in the center of the bar, including coordinates (X,Y), terrain type, and ownership.

Load Scenario and Save Scenario

The first two buttons on the upper-left side open the Load/Save window, where the scenario is named and saved.

Victory Hex Placement and Value

The Victory Hex mode control toggles on the ability to designate any hex on the map as a victory objective hex and assign a value to it for purposes of determining victory conditions. **Note:** Victory hex placement and valuation are an important part of the scenario process — please read the following carefully.

To convert a hex into a victory objective for the active side, left-click on this button and then left-click on the hex of your choice. A victory objective marker for the active side appears in the hex — a large gold star for the Allies or a red "Rising Sun" dot for the Axis.

Left-clicking on a victory hex opens a window where the value of the victory hex can be adjusted within the range of 1-9. The value assigned to a victory hex is awarded to the capturing player in prestige points and added to that player's victory point tally. Remember that the amount of victory points is compared with the "Points Needed to Lose" setting on the Battle Generator Setup screen to test for the end of a scenario. Right-clicking on a victory hex, while in this mode, removes it.

Changing National Ownership

The Nation Hex mode control's primary function is in scenarios where more than one nationality is present on a side, so that the secondary nation can be given ownership of a city or cities. This is an important step in large multi-nation scenarios, because the secondary nations cannot take replacements or build new units at cities they do not own.

Changing the ownership of a city is as simple as left-clicking on the Nation Hex control and then left-clicking on the hex to be changed. If there are two or more secondary nations, left-clicking on the hex repeatedly cycles through the nationalities until ownership returns to the primary nation.

Changing Side Ownership

Since you are using existing maps, from the scenarios we have supplied, the ownership of cities is pre-determined. The Toggle Owner mode control allows any or all of the cities on the map to be switched from one side to the other. Select the Toggle Owner control and left-click on any hex on the map to switch it from the primary Axis nation's ownership to the ownership of the primary Allied nation. Use the Nation Hex described above to change ownership between multiple nations on a side.

Lay Units Mode

This is default mode on the Battle Generator Deploy screen — the side deploying first is always the side that was active on the Battle Generator setup screen. In this mode, units are placed by left-clicking on a hex and picked up by right-clicking. They can be placed anywhere, including enemy victory hexes. If ground units are deployed at sea, they appear in the appropriate transports. When the last unit from a side's roster is placed, the Edit Unit mode legend appears in the status bar, and the currently selected unit has a red hex border.

If you deploy every unit from one side, after changing sides using the Allies/Axis toggle button in the upper-right hand corner, it will be necessary to left-click on the Lay Units button to switch to Lay Units mode and deploy the other side's units.

Edit Units Mode

This button activates the Edit Mode where units can have their strength, experience, and entrenchment values changed prior to the beginning of a scenario. If they possess organic transport, they can start the scenario mounted in their vehicles. These functions are accomplished using the buttons on the left side of the screen.

Anti-aircraft guns score a hit as U.S. carriers come under attack.

View Air/Ground Unit

The Air/Land View button toggles between whether the ground/naval unit or the air unit is larger when units of each type are in the same hex. If two units are in the same hex, this controls which unit is selected by clicking on it.

Renaming Units

One of the easiest ways to keep track of all of the units that are available in PACIFIC GENERAL is to give each unit an individual name. The easiest way to use this option is from the Edit Mode — simply select a unit and left-click on the Name Unit button. A window opens displaying the unit's current name. Simply backspace and type in the new name. Pressing the Enter key closes the dialog.

Return to the Purchase Screen

The top button on the right side returns you to the Purchase screen.

Increasing or Decreasing a Unit's Experience

The buttons whose legends are +EXP and -EXP raise or lower the selected unit's experience one level each time you left-click on them. Raising a unit's experience level is necessary before a unit can have its strength raised. Unit experience starts at "0" and can be raised up to "+5."

Increasing or Decreasing a Unit's Strength

The buttons whose legends are +STR and -STR raise or lower the selected unit's strength one level each time you left-click on them. This can be used to create stronger or weaker units for specific scenarios. A unit can be lowered to a strength of "1" or as high as "15." Remember that a unit's strength over 10 cannot exceed its experience level.

The exception to this are capital ship units, whose strength can never exceed their starting value.

Increasing or Decreasing a Unit's Entrenchment

These buttons increase or decrease the entrenchment level of the selected unit up to a maximum of the terrain the unit is currently in. These values vary depending on the terrain and unit, so some experimentation may be needed.

Deploying Mounted Units

This control lets you mount a deployed unit in its organic transport.

Embarking / Debarking a Unit

Units such as Paratroops start the scenario airborne unless you use this control to change their deployment status to place them on the ground. Once a unit is placed, left-click on the Embark/Debark button to change the unit from airborne deployment to ground deployment and vice versa.

Note: This control is not necessary to use for ground units placed at sea. They are automatically deployed mounted on their transports.

Building a Scenario

Building a scenario can be a very simple process, or an extremely complex one that could be the subject of an entire manual in its own right. The previous section detailed the functions of most of the controls and options contained in the Battle Generator. This section describes how to create a simple scenario, and lists all of the steps that are required, as well as some possible options to make a scenario more interesting.

When the Battle Generator Setup screen appears, there are default numbers in most of the fields. The one absolutely necessary step that must be performed from this screen is the selection of a map. The middle button of the five under the world map on the right side is the Load Map button. Left-clicking on this button opens the directory where the map files (.MAP extension) are stored. Select one by double-clicking on it, and the menu window closes. While not necessary, the Edit Scenario Title and Edit Scenario Description controls make the scenario truly yours and help differentiate between a scenario you have created and one that came with the game.

The default victory condition settings are sufficient for a simple scenario where the objective is to eradicate all of your opponent's units. Setting the Victory Hexes Needed to Live to a value greater than "0" makes victory hexes important as well.

Adjusting the settings in the AI Bucket control is not necessary, but can make for a much more interesting scenario, particularly if victory hexes are going to play an important part. See the "Setting AI Bucket" section, starting on page 35, for an example.

Select nations for the Allied and Axis sides if you wish to play something other than the default selections of the US and Japanese. This is where you would add additional nationalities as secondary adversaries.

Set Turns

Clicking on the Go to Purchase (Next) button opens the Battle Generator Purchase screen. Select the units you want to use in the game — remember to select units for both sides! Before buying air units, make sure that the map you select has an airfield or they may not survive the scenario. Once you have established the forces to be used by both sides, use the Go to Deploy (Next) button to go to the Battle Generator Deploy screen.

The Battle Generator Deploy screen displays the map you loaded previously. The default setting is Lay Units mode, visible on the Status bar above the left-hand column of buttons. To continue with our "simple" scenario example, choose the hexes where you wish the first side to deploy, and left-click to place the first unit. Right-clicking picks up a placed unit. Deploy all the units from one side then left-click on the Allies/Axis button in the upper right corner to change sides. Left-click on the Place Mode button and deploy all of the units from the other side. Left-click on the Save Scenario button to open the window where you can save your work.

If you want this scenario to be something other than a slugging match, you should use the Victory Hexer control to create victory hexes, and assign values to them.

Use the Save Scenario button again to save your work Use the Load Home Made Scenario button from the Scenario Selection screen to load this scenario and you are ready to play your first hand-crafted scenario.

Some ways you can use the Setup controls to customize your scenarios are as follows:
• Use the Set AI Bucket menu give one side a prestige point advantage.
• Set more than one victory hex.
• Adjust the scenario turn length.
• Include night turns.
• Experiment with high latitudes and bad weather.
• Use more than one nation on each side to vary the mix of units available.

Unit Classes

Nationality

Scroll Arrows

Units

Glossary Entry

INFORMATION SCREEN

This button opens up a window where four options are presented:

Show the Unit Glossary Screen

There are two kinds of buttons visible on this screen — the class buttons in two columns down the left-hand side of the screen and the nationality flag buttons in the panel on the uppermost of three data panels on the right. The class buttons have amber lights to indicate which class is selected. The buttons on the left are ground units: infantry, armor, artillery, fortifications, and so on. The buttons in the right column are naval classes including capitols ships and aircraft classes.

By selecting a class and a nationality, you can display up to six types of a particular class in the center panel. By left-clicking on a unit icon, the unit details are displayed in the bottom panel. If there are more than six types of a particular class, arrow buttons allow scrolling to display each type of unit.

Show the Opening Cinematic

This button shows the opening cinematic.

Show the Game Credits Cinematic

Left-clicking on this button rolls the SSI credits cinematic
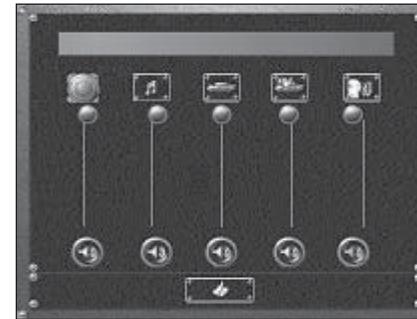
Open the Audio Control Window

The Audio Control window features five volume slide controls and five On/Off toggle buttons.

When a toggle button is green the sound should be active and audible, when the button is red, the sound is toggled off.

• The Master Volume controls adjust or disable all sound effects.

• The Music Volume controls adjust or disable all music effects.

• The Movement Sound Effects controls adjust or disable all sound effects.

• The Attacking and Explosion Sound Effects controls adjust or disable all combat sound effects.

• The Ambient Sound Effects controls adjust or disable all ambient effects.

TCP/IP
IPX
Modem
Player Name
Host Game
Session Name
Join as Guest
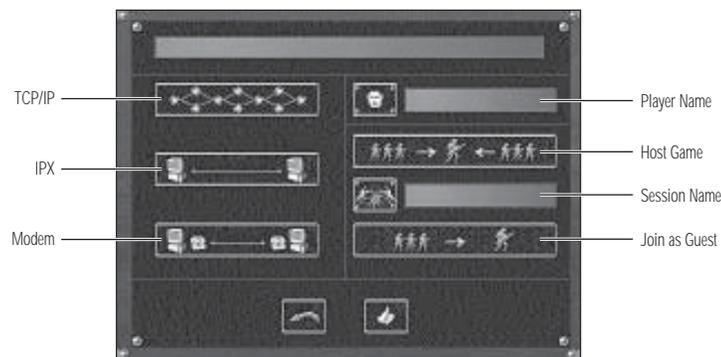
MULTIPLAYER OPTIONS

PACIFIC GENERAL features full Internet/Network/Modem support for two-player games. You can host or join a game in order to play against another player using their IP address, across an IPX compatible network, or direct dial another player's modem for direct serial play.

In order to play a multiplayer game of PACIFIC GENERAL, one player is the Host, starting the game, and the other player then becomes the Guest. The Host selects the Host Game option and enters a name for this session in the field above. The Host player then selects Internet TCP/IP Connection, IPX Connection, or Modem Connection setting and clicks on the Done button. Depending on the type of connection chosen, other pieces of information may need to be entered as follows.

Internet TCP/IP Connection

When hosting an Internet TCP/IP game, the system waits for the guest to connect. The guest is prompted to enter the IP address for the host, and PACIFIC GENERAL searches for the host using that address.

IPX Connection

When the host or the guest of an IPX game clicks on the Done button, the game waits for the guest player to connect to the game.

Modem Connection

The guest is the active party in a direct Modem Connection game. After selecting Modem Connection and Guest Game a window opens with space for the other player's telephone number. Pressing the Enter key or clicking on the Connect button dials the number and waits for an answer.

The host of a Modem game has a window appear that prompts for a response to the guest player's call.

Connection and Setup Screens

Once the guest connects to the host, the Multiplayer Connection screen opens. This is basically a "lobby" where the players can chat, and select the scenario to be played. This screen contains the Multiplayer Setup screen where experience and prestige settings are made to set the game's preferences before starting the game. Once these steps have been completed, the game begins as normal.

LOAD SAVE SCREEN

The Load/Save window displays the list of saved games found in the Save directory. There is also a field for entering a new filename. Left-clicking on the Previous button returns to the PACIFIC GENERAL screen, left-clicking on the Load/Save button loads a selected scenario.

QUIT

Quits the game and returns to the operating system.

THE GAME MAP CONTROLS, WINDOWS, AND BUTTONS

This section provides step-by-step suggestions to familiarize you quickly and easily with the basic controls, windows, and buttons in PACIFIC GENERAL. The Game Map appears subtly different depending on which side you are playing, Allied or Axis. The Allied map screen features a riveted metal motif, with rendered buttons for the Main, Option, and Unit Controls. The Axis Game Map screen in contrast features a wood and brass appearance, with the buttons displayed as illuminated or dim "paper" shoji panels. On either version of the Game Map screen, unavailable options' hot text is in red; available options feature white hot text.

Replay
Unit Information Panels
Fuel Gauge
Status Bar
Save Game
Load Game
Fast Save Game
Fast Load Game
End Game
Audio Control
Purchase Unit
Toggle Animation On/Off
Send Electronic Message
Show Score
End Turn
Weather Panel
Hide / Show AI Move
Hide / Show AI Units
Hide / Show Hex Grid
Show Terrain
Supply On/Off
Weather Rules On/Off
Hide / Show Unit Strength
Next Unit
Goto Unit Screen
View Strategic Map
Air / Ground Toggle
Main Controls
Units
Option Controls

Game Map Screen

The Game Map screen displays an area fourteen hexes wide by eight hexes high where all battles are fought and movement take place. The map can be scrolled by moving the pointer to the map edge in the direction to be scrolled. There are four information panels across the top, and rows of buttons that can be toggled on or off down both sides of the screen. There is also a Status bar between the panels and the map.

Fuel Gauge

In the upper left corner of the game screen, a fuel gauge is displayed to represent the amount of fuel that an active air unit has remaining. If the air unit's move could carry it beyond the range of the nearest air field or aircraft carrier, a "red light" symbol appears on the fuel gauge to warn you that the aircraft is beyond the halfway point in its fuel use, or that you have no places for the unit to land or refuel.

Unit Displays

When no units have been selected, the upper, right panel shows the name, class, fuel, and ammunition supply of any unit the mouse pointer is over.

When a unit has been selected, the upper, left panel shows this information for the currently selected unit. While a unit is selected, moving the pointer over an enemy unit causes the enemy unit's data to appear in the upper right panel. If a friendly unit is capable of attacking an enemy unit, the projected losses from the combat appear over the unit being attacked. These are only projected losses, and may differ quite a bit from the actual results!

Weather Display and Time Display

In the upper right corner of the game screen is a graphic animation representing the current weather conditions in the scenario. In the upper left corner is an identical panel that displays an animation indicating the type of scenario, unless the active unit is an aircraft, in which case, the upper-left panel contains the unit's fuel gauge.

Status Bar

The active player's pool of prestige points available for buying new units or replacing losses are displayed below the fuel gauge on the top left, on the border between the information panels and the map. Opposite the Prestige display, below the weather display, is the turn indicator, which reads Turn n (x) where 'n' is the current turn, and 'x' is the number of turns in the scenario.

The middle of the Status Bar has the terrain legend describes what the pointer is over. If the pointer is aimed at a hex, the type of terrain in that hex is displayed, for example, Clear, Rough, River, Jungle, Woods, City, or Ocean. When the pointer is over a point of interest such as a town, or city, the name of that feature appears. The X,Y coordinates of the hex the pointer is over appear in parenthesis after the terrain type.

The following features may be on the Tactical Map:

• Over 30 different types of terrain.

• Icons indicating friendly, neutral, or enemy control of objective hexes.

• Friendly, neutral, and enemy units.

Game and Unit Controls

During the game, there are different sets of buttons that appear on the both sides of the Game Map screen when that option is selected. These buttons can be toggled on and off by pressing the Space bar. When the buttons are toggled off, they can be "dragged" into view by moving the mouse pointer over the Prestige or Turn display areas of the upper display panel, and then down to the control of choice.

The buttons on the right side are the Options Control buttons and remain constant. The buttons on the left side of the screen form the Main Control buttons when no unit is active, but become the Unit Control buttons when a unit has been selected. If the screen-side buttons are toggled off, all of the Unit Control options available to the active unit can also be viewed by left-clicking on the active unit a second time to open the Unit Control dialog.

Unit Information Display

If you left-click on a de-selected unit that has completed its turn, an enemy unit, or right-click on an inactive unit, a window appears displaying the following statistics, which can be closed again by right-clicking.

Unit Name

A numerical unit type designation, such as the 45th Tigercat, or a ship name such as the *Yamato*.

Unit Type

This lists the type of unit within a class, such as TBF Avenger.

Movement Points

The number of movement points this unit has, followed by any limits.

Spotting

The hex radius within which a unit can spot all enemy units in fair weather. Note that there are no terrain restrictions on spotting — for example, a mountain hex does not block spotting beyond it.

Target Type

There are five target types: Soft, Hard, Plane, Submarine, and Naval. Each unit has a separate attack value against each type of target.

Initiative

In combat, the unit with the greater initiative attacks first, although all results are applied simultaneously. The unit winning initiative gains a +4 bonus to its defense value. In the case of identical initiative, attacks are simultaneous. Experience and the terrain of the defending unit modify initiative values.

Soft Attack

The unit's attack value against "soft targets" such as infantry, trucks, and towed weapons.

Hard Attack

The unit's attack value against "hard targets" such as tanks, recon, and half-tracks.

Air Attack

The unit's attack value against air targets.

Naval Attack

The unit's attack value against naval targets.

Sub Attack

A unit's attack value against submerged submarine.

Ground Defense

The unit's defense value against attacks by land and naval units.

Air Defense

The unit's defense value against air units.

Assault Defense

The unit's ability to defend itself in disadvantageous situations. These situations result when a unit unexpectedly encounters an enemy, and are announced by the game as "Rugged Defense!" When any unit attacks infantry which puts up a rugged defense, the attacking unit uses its assault defense value. When combating infantry in certain types of difficult terrain, ground units suffer the handicap of using their assault defense values. Infantry do not retain this advantage when they are in clear terrain. Since assault defense values are usually less than ground defense values, this makes infantry more dangerous in favorable terrain.

Certain types of terrain are considered close terrain. Whenever an attack is made into this form of terrain by a ground unit, and either opponent is infantry, then the assault defense is used by the infantry's opponent. Anytime a bunker is an infantry's opponent and the bunker is not defending as ambush or rugged defense, then the bunker uses its assault defense. Also any time an ambush (or rugged defense) occurs, and the defender is infantry, then the attacker uses his assault defense. Close terrain hexes are: cities, ports, forest, jungle, kunai, bamboo, bocage, rice paddies in season, swamp, hill, mountain, escarpment, jungle path, and fortified terrain (not a hex with a fort in it).

Torpedo Defense

Naval unit's defense against attacks from submarines and destroyers. This defense is not used against attacks made by torpedo bombers.

Depth Charge Defense

A submarine's defense value against depth-charge attacks made by destroyers.

Range

The unit's shooting range in hexes. A range of '0' means that only targets adjacent to the unit can be attacked.

Special Ability or Technology

If the unit benefits from any special ability or technology, that is listed here.

Suppression

This indicates the number of a unit's strength points suppressed by enemy shooting. The unit's number of remaining strength points are used to shoot back in that turn. Most suppression lasts only for the duration of a single combat, but level bombers can suppress units for the player's turn, thus facilitating further attacks on the suppressed unit. Defending units whose suppression number is greater than or equal to their current strength, retreat or surrender.

Option Control Buttons

Show / Hide AI Move

The computer's move can be set to be visible to all whose search radius is crossed. This button is an on/off toggle and hides the computer's move even if enemy units are normally visible.

Show Hidden Units

Changes the view on the map in the Main Game window to show or hide all of the opponent's units. Computer attacks are always shown.

Hide Hex sides

This button toggles hex sides on and off on the Tactical Map.

Show Terrain

This button removes all units from the Game Map to view the underlying terrain. Click on the button again to restore game map.

Supply

Toggles the automatic supply rules on and off. See the "Automatic Resupply" section on page 75 for more information.

Weather

Toggles effects of realistic weather conditions during the game. Beginning players may want to leave this option off while they are learning the game.

Show Unit Strength

Hides or shows the strength indicator of each unit.

Next Unit

This option selects the next unit, in numerical order, that is capable of movement or combat.

Goto Unit Button

Go To Unit

This button brings up the Unit Roster screen, listing the units for that side in order of class. Left-clicking on a unit icon selects that unit and switches back to the Game Map where the unit can be given orders if the Goto Unit buttons is selected.

Next to the unit icon are the Unit Equipment Statistics. For a detailed description of what these statistics represent, see the "Unit Equipment Statistic Descriptions" section on, starting on page 82.

View Strategic Map

This button changes the view from the Game Map to the Strategic Map. The Strategic Map indicates Allied units with gold stars and Allied victory hexes are solid green hexes. Axis units are red "Rising Sun" symbols, while Axis victory hexes are solid tan hexes. Neutral nation's victory hexes are represented on the map as dark brown hexes, and German victory hexes are in gray. The size of the Strategic Map varies from region to region. Clicking on the Strategic Map will center the Game Map screen on the hex selected in the larger view.

View Air/Ground Unit

This button toggles between whether the ground/naval unit or the air unit is larger when units of each type are in the same hex. If the Strategic Map is displayed, it displays air or ground units, not both.

Main Control Buttons

Load and Save Game

Left-clicking on these buttons opens the Load/Save game menu. The text line across the top of the window is the hot text display and the large central text field is where the names of saved games are displayed. At the bottom of the window is a text field for entering the name of your saved game. Left-click in the bottom to type in filename up to eight characters long. Left-click on the Load/ Save Game button to save your game and return to the Game Map screen.

To load a game, left-click on the name of the saved game you wish to restore and left-click on the Load/ Save Game button to restore your game and return to the Game Map screen. Scroll buttons allow you to view the list of saved games.

Fast Save Game

Left-clicking on this button saves the game at the current point in time. This save cannot be used for a Play-by-Email game.

Fast Load Game

Left-clicking on this button loads the game saved in the Fast Save file.

Quit Game

Left-clicking on this button prompts for a "yes" (thumbs up) or "no" (thumbs down) decision to quit the current game and return to the PACIFIC GENERAL screen.

Open the Audio Control Window

The Audio Control window features five volume slide controls and five On/Off toggle buttons.

- The Master Volume controls adjust or disable all sound effects.

- The Music Volume controls adjust or disable all music effects.

- The Movement Sound Effects controls adjust or disable all sound effects.

- The Attacking and Explosion Sound Effects controls adjust or disable all combat sound effects.

- The Ambient Sound Effects controls adjust or disable all ambient effects.

When a toggle button is green, the sound is active and audible, when the button is red, the sound is toggled off.

Purchase Unit

The classes are listed down the left side of the purchase screen. Once a class is selected, the rest of the screen reveals information about the various types of unit available, and indicates the cost in prestige points beneath each unit. The unit cost also appears at the lower-left of the unit summary area.

Left-clicking on a particular type of unit displays the unit summary showing important information about that unit such as combat factors, movement, fuel, and ammunition. See the "Prestige Points and Purchasing Units" section, starting on page 76, for more information.

Turn Animations On/Off

This button toggles combat animations on or off.

Send Electronic Message

This option opens a window where a message is entered to be sent to a multiplayer game opponent, or recorded for an PBEM game opponent.

Show Score

This displays a tally of classes lost on both sides for both the current battle and the entire Campaign.

End Turn

This button ends the turn for the active side.

Unit Control Buttons

The Unit Control buttons replace the Main Control buttons down the left side of the screen when a unit is selected. Alternately, the Unit Control window can be called up by left-clicking on the selected unit a second time.

Replacements

This button replaces lost strength points and automatically resupplies the unit as described under "Supply Unit" below. Replacements begin with 0 experience which is averaged with the unit's current experience to generate a new experience level. This option ends the unit's turn. Units can get replacements anywhere, except that air units can receive replacements only when on a friendly airfield or on board an aircraft carrier. A unit receives fewer replacements if an enemy unit is adjacent. If two enemy units are adjacent, the unit cannot receive any replacements unless it is in a city. Bad weather and desert terrain also reduce replacements. In between campaign scenarios, under-strength units are brought up to strength with elite replacements.

Elite Replacements

These are treated the same way as regular replacements except that: they do not reduce the unit's experience level and they cost four times as much. Although expensive, using elite replacements to reinforce a damaged unit is cheaper, point-for-point, than building a new unit with no experience. Units recovering elite replacements lose no experience.

Upgrade

This button activates the Upgrade Unit screen which is similar to the Purchase screen; here you can change the type of unit within its class and add or subtract organic transport if available. You can only upgrade units when deploying for a campaign scenario or during a scenario when in a friendly city (or, in the case of air units, on a friendly airfield) with no adjacent enemy units. Upgrading a unit during battle requires one turn. Naval air units cannot be upgraded to land – based or vice-versa.

Reinforcements landing on Saipan.

Disband Unit

This is most effective when the number of units allowed to you is proving to be a problem. Weak units can be disbanded in order to create new units which are more effective in given circumstances. Example: disbanding an inexperienced infantry unit to purchase a tactical bomber to help soften up enemy defenses.

Name Unit

Allows you to personalize unit names. These names remain in effect until the end of the scenario or through the entire campaign. You may want, for example, to name units according to their capabilities or how you intend to organize them in battlegroups.

Supply Unit

This re-supplies the selected unit with up to half its maximum capacity and takes one turn. Units receiving replacements automatically resupply. Adjacent enemy units prevent resupply except as part of receiving replacements. Snow and rain reduce resupply by 1/3. Desert terrain reduces the amount re-supplied by 3/4, to a minimum of 1 ammo and 1 fuel.

Cancel Move

This option becomes active when you have moved a unit. It allows you to take back the move just made. You cannot, however, take back attacks or moves in which your units spot previously hidden enemy units, or if you attack, then move.

Mount/Dismount

This allows units to be moved more quickly by available transports. Mount units which have transports whenever possible, but be aware that mounted units make easy targets. After you Mount/Dismount and move your unit, you must then choose whether or not you want to Cancel. Unless selected *immediately* after the unit's movement, you will not be able to take back the move you just made. If a unit is going to need to mount its transports in order to reach a hex, the mouse pointer changes to a truck.

Embark/Disembark

This allows most units to use naval transport when available, and allows infantry, light artillery, and light anti-tank guns to use air transport. When embarking, the unit's icon is replaced by a sea or air transport icon. Units can only embark on naval transport at piers or coastal cities and on air transport at airfields. Embarking and disembarking units can only be done at the beginning of a unit's turn. Naval transports can disembark into an adjacent unoccupied land hex and air transports can only disembark at any unoccupied airfield. Paratroops may select the hex the air transport is in or any adjacent land hex as their drop zone, and are subject to drifting from the selected drop zone (they can drift into cities). Disembarking ends the unit's turn. For more details see the "Embarking and Disembarking Air and Naval Units" section, starting on page 67.

Repair

The repair option only works for capital ships, such as battleships, aircraft carriers, heavy cruisers, and submarines. The Repair function uses up the capital ship's entire turn and allows the reduction of effects from critical hits. For more information, see the "Critical Hits" and ""Capital Ship Repair Option" sections on page 79.

Start Replay

This control begins the replay of your opponent's previous turn. If Hidden Units are toggled "On," then all parts of your opponent's move are visible. If not, you will only see what your units spotting range allows you to see.

Special

While several types of units have special abilities in PACIFIC GENERAL, only two use the Special button to activate them.

Aircraft Carriers

Aircraft carriers with planes stored in hangar bays have a blue dot symbol to the right of their strength indicator. Clicking on the Special button while an aircraft carrier is selected opens the Hangar display which shows any aircraft on board the carrier. Left-clicking on an aircraft displays its status and makes it available for launch by clicking on the Launch button. After launch, the aircraft is deployed over the carrier — it can be moved normally this turn and must be moved if more aircraft are to be launched.

Combat Air Patrol

Fighters can be assigned to act as combat air patrol for an aircraft carrier or battleship they are adjacent to using the Special button. When a fighter is on CAP, there is a blue dot next to the right side of its strength indicator. Up to seven fighters can be placed on CAP, one in each hex around the carrier or battleship and one over it, however, no other planes can then land or be launched. Each fighter on CAP attacks the first enemy plane that tries to attack the carrier, if it has not already attacked during that turn. Once it has attacked, the fighter is removed from CAP status, but can be placed back on CAP the following turn. Only one plane can intercept each attack.

PLAYING PACIFIC GENERAL BY EMAIL

Playing a PACIFIC GENERAL scenario as a play by Email (PBEM) scenario is identical to playing a regular two-player scenario except that after each side's turn, the scenario is saved in a file to be sent via Email or on a floppy disk to your opponent.

Once a scenario has been chosen from the list of scenarios or by left-clicking on the globe, the Start Email Game button takes you to the Setup screen. Clicking on the Done button closes the window and reveals the Prestige and Experience dials where prestige points and Experience handicaps for each side may be increased or decreased as described in the "Setup Screen" section on page 30.

Instead of having a choice between human and AI players, the icon for a human player appears next to the starting side's prestige and experience dials, and the PBEM icon appears next to the other set of dials. Once these settings have been adjusted, or not, click on the Next button to begin the scenario. Before a unit can be moved, however, a window appears whose legend reads "Axis Email password" or "Allied Email password" depending on which side starts the scenario. The text field in the window is where a password may be entered. Clicking on the Done button begins the movement phase of that turn.

When the End Turn button is selected, a window opens where you are prompted to enter the PBEM save game name. Once a name has been entered and the Save button is pressed, PACIFIC GENERAL returns to the Main screen. Now all you need to do is send your opponent the saved game, which is the filename you typed with a ".EML" suffix, to be placed in an appropriate save directory. .

Loading a PBEM Game

From the PACIFIC GENERAL screen, choose Load Saved Game option. A window appears where the appropriate PBEM save filename can either be typed in or double-clicked to select. On the opposing player's first turn, they are prompted to enter a password of their own. Once the turn begins, an opponent's previous turn can be reviewed using the Replay option, although enemy units that are outside spotting range are not shown on the replay.

MOVEMENT RULES

Game Turns

In PACIFIC GENERAL, each scenario has a specific number of "turns." Each turn is comprised of two parts: The Axis phase, during which the Axis player moves while the Allied player observes, followed by a similar phase for the Allied player.

In each turn you and your opponent are given a chance to move units, attack enemy units, resupply units, and so on. When your turn is done and you have moved or given orders to all of your units, click on the End Turn button. Afterward, the opponent moves his units and completes the turn.

During a turn each unit can move and attack once, however, you may move a unit, drop it to move another unit, then return to that first unit and move it again if it has movement points remaining. Exceptions to this are artillery, anti-tank, and air defense units which can only shoot before they move. Units which have used all of their movement or taken replacements, are indicated by their strength indicators changing color to a darker shade of their original color. Units which have attacked are indicated by a red border around their strength indicator.

Night Turns

A new feature in PACIFIC GENERAL is the inclusion of "night" turns. Rather than having each turn represent only one day, or a series of days, any turn can be a few hours, a full day or several days. Turns that are less than a full day can happen during darkness, and some new variables come into play to represent the difficulties for units operating during darkness.

General

- All units burn 2x fuel.
- Spotting values are 1/2 (rounded down) of daytime spotting.
- All ranges are reduced to a maximum of 2.

Naval Units

- Night Optics - ships equipped with improved optics ignore night spotting limits and reduce enemy initiative to zero unless the enemy unit has Radar special technology.
- Radar - ships equipped with radar ignore all night rules vs. naval units.

Air Units

- Only Level Bombers can attack at night, and night bombing is at 1/2 strength. Night bombing during overcast conditions reduces Level Bomber attack strength to 0.
- No Air-to-Air attacks are possible for units without radar. Units equipped with radar can attack at full strength.
- Air units attempting to land on Aircraft Carriers at night can lose from 1 to 8 strength points. Each experience level gained by an air unit directly offsets these losses, so that an air unit with two experience levels might suffer no losses.

Land Units

- All ground combat unit's initiative is effectively 0. All combat results apply simultaneously. Modified by experience and/or a massed attack.
- Defense value against night attacks is enhanced by twice the defending unit's experience level value. For example, a unit with two stars of experience would defend at +4.
- Direct fire attacks on adjacent units add the attacker's experience level (0-5) to the attack value.

Some special abilities or technology can reduce the effects of darkness, such as Night Optics or Radar.

U.S. transports unloading supplies at Letye Gulf.

Weather Effects

Weather is randomly determined based on actual weather conditions for the month of the year and weather zone in which a battle occurs. Weather may change between fair weather and storm fronts. Storm fronts can last for a number of days and have the possibility of generating only overcast weather or becoming rainstorms or snowstorms. It never rains or snows in North Africa. Note: during rain or snow storms aircraft cannot attack.

Bad weather generally helps the defender and the side with air inferiority because of the inability of air units to attack and their reduced scouting ability during bad weather. Interludes of bad weather are good times to resupply and rebuild units or make them overstrength while waiting for the weather to clear.

Weather Effects
Cloudy Weather
- Attacks from ground-to-air and air-to-ground are at 50% strength
- Air units spotting reduced to 50%.
- No air-to-air attacks during night turns.

Stormy Weather (includes Snow conditions)
- No ground-to-air, air-to-ground, or air-to-air attacks.
- Air spotting range is reduced to 1.
- Ground spotting range is 50% of normal, to a minimum of 1.

Mud
- Slows movement of ground units in any terrain except paved roads, paved airfields, and cities.

Snow
- Slows all movement, and ground units use 2x fuel.

Neutrals

In a few scenarios, a third side will be present on the map. The third side does nothing and remains dormant unless an active player attacks them. At that point, the third side becomes hostile to the attacking player, and enters the game as a third player. Neutrals you may have attacked in campaign games return to neutral status with regard to your side at the end of the current scenario. All is forgiven mon ami.

Moving Units

Left-click on a unit to make it ready for orders. The selected unit can move to any hex that is illuminated — it cannot move to a hex occupied by another unit. (Exception: An air unit can occupy the same hex as a ground unit.)

As long as a unit has movement points remaining it can be moved more than once during a turn. Every time a unit is moved, what the unit can see is updated, revealing any previously hidden units. When the unit is deselected, one point is subtracted from the unit's remaining movement allowance.

Zone of Control

A unit exerts a zone of control into the six hexes around it. Surface units' zones of control affect only surface units and air units' zones of control affect only air units. When you move a unit into the zone of control of an enemy unit, your unit's movement is stopped. If your unit was ordered to move to a point which takes it through a hex occupied by a previously hidden enemy unit, your unit may be ambushed by the enemy unit in which case your unit's turn ends after combat is resolved.

Movement Cost

Each unit has a movement point allowance per turn that is spent as it moves. The movement point cost of each hex depends on the terrain in the hex, weather conditions, and the unit movement type. See "Appendix B — Movement Point Costs by Terrain" starting on page 99.

Every movement point a unit uses costs 1 fuel, except during bad weather or at night. When the ground is covered with snow all ground units pay double fuel costs, i.e. two fuel points per movement point — snow does not reduce the distance that a unit can move. At night all units burn triple the fuel.

Movement ends prematurely if a unit moves adjacent to or is ambushed by (moves into) a previously-hidden unit. An ambush is treated as an attack with the defender receiving an automatic rugged defense. Entering a river hex ends a ground unit's movement, except when the river surface is frozen. It may exit river hexes normally the following turn. Dismounted bridging engineers may serve as bridges, eliminating this penalty for the hexes engineers occupy.

Dirt Airfields

In addition to Paved Airfields, there are Dirt Airfields in PACIFIC GENERAL. The effects of the airfield are that air units can only resupply when ending a turn directly over the airfield, and cannot receive replacements from the dirt airfield.

Coast Hexes

Submarines cannot enter coastal hexes in submerged mode, and Deep Naval units cannot enter at all.

Cancel Move

After moving a unit to another hex you can cancel that move by immediately selecting the Cancel Move button from the Unit Menu. Cancel Move does not permit you to undo attacks, nor does it let you undo moves which spot previously hidden enemy units. If the unit did not attack before moving, undoing the move permits you to take any action with the unit: attack, movement, take replacements, resupply, and so on.

Which Units Have Moved?

When a unit has used its entire movement point allowance and attacked its strength indicator changes to a darker shade of its original color. If the strength indicator is still its original color, the unit can still move. A unit which can no longer fire has a red border around its strength indicator.

Spotting Units

If the Show Hidden Units preference is off, all hexes become hidden at the beginning of each turn except those that are within 1 hex of a friendly city, port, or airfield or within the spotting range of friendly units. Air units' spotting range is halved by overcast weather and reduced to 1 hex when it is raining or snowing. Other units' spotting ranges are halved when it is raining or snowing.

Once a hex is spotted during a player's turn, it remains spotted for the entire turn. Any time a friendly unit moves and does not abort its move, it spots all hexes within its spotting range. Terrain has no effect on spotting.

Enemy units within your unit's spotting range are automatically spotted except for submerged enemy submarines, which your units have a 50% chance of spotting.

Mounting and Dismounting Units

Units that have the ability to be mounted can mount automatically. When a unit with a land transport is selected, the area that the unit can move to is highlighted. When the cursor is moved over an area the unit would have to be mounted to reach, it changes from an arrow to a small truck icon. When you select a hex in the mounted range, the unit is mounted, and moved to the desired hex.

A unit can only mount and dismount prior to moving — a unit that has moved via transport must remain in the vehicle at the end of the move. A unit cannot mount, move, and then dismount. A mounted unit can perform the same actions as a dismounted unit: get replacements, upgrade, disband, resupply, and so on.

Organic transport is transport which is permanently assigned to a unit and cannot be shared (i.e., trucks or half-tracks). Note: In later scenarios, if you want to purchase a transport for an existing unit, you must move the unit into a friendly city hex and choose Upgrade from the unit menu.

Embarking and Disembarking Air and Naval Units

All cities and piers adjacent to an ocean hex act as ports for the purpose of embarking on troop transports. At the beginning of each scenario that uses air and naval transport, transport points are allotted to one or both sides. These transports represent the allocation of air transports and/or naval transports to your command. These transports are used to move units around the map and over the sea. When you move the cursor over a friendly port, pier hex, or airfield, the current transports available appear on the Status bar. When you embark a unit, it uses one available transport point. When you disembark a unit, it frees one available transport.

Air Embarkation

Units can embark in a plane from a friendly airport hex — units can disembark only onto an unoccupied airport hex. A unit may disembark when the airport hex is owned by an enemy nation. When a unit embarks onto an air transport, the unit icon is replaced by the air transport icon. Only certain classes of units can embark in a plane: infantry, light anti-tank, light artillery.

If the unit is on the airport hex at the beginning of the turn, the unit can embark and move in the air transport during the same turn. A unit cannot take its organic transport with it when it embarks in an aircraft; you are prompted to abandon the transport or cancel the embarkation.

There is a fixed number of air transport units available in a scenario. Even if a unit can legitimately embark, there might not be an air transport available, in which case the Embark button is not available. Players cannot purchase air transport units. When an air transport unit is destroyed, it cannot be replaced.

Units with the paratroop special need not disembark at an airfield, they may select the hex the air transport occupies or any adjacent ground hex as their drop zone, but they may drift from the selected drop zone.
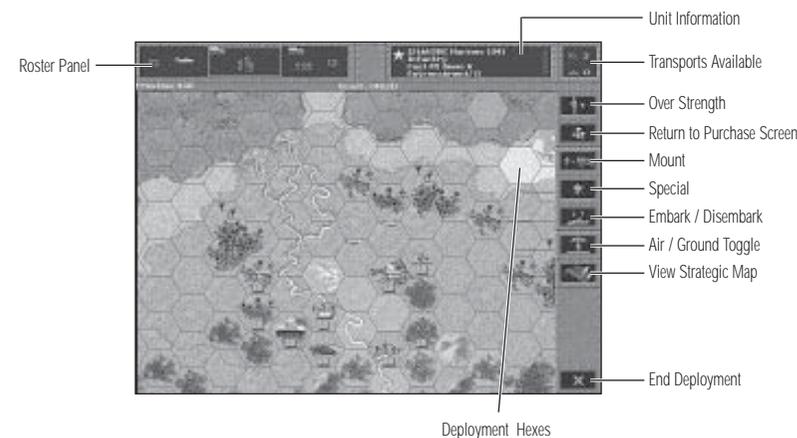
Sea Embarkation

Most ground units can use sea transports — naval and air units cannot. Units can embark on naval transports only at piers or coastal cities. Sea transports can disembark on any unoccupied land hex — they do not need to get out in a port. Note that sea transports cannot disembark into coastal cities.

When a naval transport is selected, the unit on board may disembark in any highlighted land hexes adjacent to the transport. Disembarking uses the ground unit's entire turn.

A unit with organic transport can take its transport with it when it embarks into a sea craft — it does not need to abandon the organic transport. A unit is dismounted when it disembarks, regardless of the state it had when it embarked (mounted or dismounted).

A unit that disembarks into an unoccupied enemy port captures it. Remember that only infantry, tank, anti-tank, and recon units can capture cities.

Roster Panel

Unit Information
Transports Available
Over Strength
Return to Purchase Screen
Mount
Special
Embark / Disembark
Air / Ground Toggle
View Strategic Map
End Deployment

Deployment Hexes

Deploying Troops

When you are given the chance to deploy your troops at the beginning of a scenario it is best to start by viewing the battlefield on the Strategic Map and evaluating its tactical possibilities. See the "Strategy Notes" section, starting on page 96, for tips on planning your battle. Once you've planned your strategy, start deployment with your spearhead units and then follow with the rest. The Deployment window allows you to see all of your available units, upgrade their equipment (including providing them with organic transport), increase the starting strength points of those with at least one level of experience, and select which ones to place. The Roster panel displays three units. The left arrow scrolls to the left, the right arrow scrolls right. Select a unit in the Deployment window, and click on a hex in a highlighted deployment area to place the unit — right-clicking on a placed unit removes it from the map. Left-clicking on a deployed unit makes it ready for adding overstrength points, embarking, or mounting on organic transport.

COMBAT RULES

Combat and Suppression

Each non-suppressed strength point makes an individual attack on the enemy using the unit's attack and defense values. Suppressed elements do not count in the firing order, but suppression (other than suppression resulting from level bombers or naval bombardment) lasts only for the duration of the current combat. The number of strength points in the firing order is also halved by mud, rain, or snow for ground troops and by overcast weather for air units (air units may not attack in rain or snow). It is also halved if the unit has run out of fuel (if it runs out of ammo, it can't attack).

Numbers next to this icon indicate strength point losses killed.

Numbers next to this icon indicate strength point losses wounded.

Numbers next to this icon indicate strength point losses for non-capital ship classes: destroyers, light cruisers, and transports.

Numbers next to this icon indicate strength points suppressed by level bombers or naval bombardment.

Attacking

The attack option reticle and combat results appears when you pass the mouse pointer over an enemy within attack range. The combat results displayed under each national flag are the losses projected for each force. Keep in mind that these are projected losses — they may not be the same in actual battle! When you decide to attack, click when the cross-hairs target is over the enemy unit.

As battle is resolved, the combat results window displays the losses to each unit. Any suppression is shown to the right of the number of strength points destroyed.

A unit may move and attack, or attack then move, with the exception of artillery and air defense, which cannot attack after moving.

Entrenchment

This is the unit's current total entrenchment level. All ground units can entrench, but at different rates. All terrain types have a base entrenchment level from 0-4. Ground units in that hex automatically entrench at the end of their turn. Units that have not moved are assumed to dig in each turn even if they attack, resupply, and so on. Each turn the unit does not move, it digs in. Infantry is best at entrenching, and anti-aircraft and tanks are the worst. Units can entrench up to a maximum of 5 levels above the base entrenchment level for the terrain. If a unit moves out of the hex it loses all its entrenchment levels, so pick a good position before digging in.

Each attack on an entrenched unit, whether successful or not, reduces its entrenchment level by one level unless from a battleship class unit, then entrenchment is reduced by two levels. Repeated attacks in a single turn can even reduce the entrenchment level below the base level for the terrain, thus facilitating further attacks during the same turn.

Base entrenchment levels are: 4 for fortifications, 3 for cities, 2 for forests, bocage (intertwined hedgerows), and mountains, 1 for rough terrain and non-city port facilities, and 0 for everything else.

Entrenchment levels are a key concept in the game — units able to dig into a prepared position are tougher to root out. Entrenchment levels are reduced by attacks or bombardment of entrenched ground units. Entrenchment levels are a feature of units, not terrain, but affect combat much as terrain does — they make a devastating "Rugged Defense" more likely.

In the game, the way to attack a strongly entrenched unit is with a combination of aerial and artillery preparatory bombardment, followed by ground attacks by one or more units. Entrenching takes time unless a unit begins a scenario entrenched. Some units can take more advantage of ground and therefore can entrench more quickly than others in the game. Moving units have a zero entrenchment level, but gain the base entrenchment level of the particular terrain they end in when they stop. Units with the Engineer advantage ignore entrenchment, making them valuable units during this type of assault. Infantry is affected by entrenchments the least.

Initiative

In combat, the unit with the greater initiative attacks first although all results are applied simultaneously. The unit winning initiative gains a +4 bonus to its defense value. In the case of identical initiative, attacks are simultaneous. Experience and the terrain of the defending unit modify initiative values.

In dense terrain such as jungle or in cities, experience has a greater effect on initiative — experience has less of an effect in open terrain. If the attacking unit encounters an ambush or rugged defense, the attacker's initiative is 0. Massed attacks increase the attacker's initiative by adding one to the initiative for each additional unit in contact with the enemy, added after all other modifiers are calculated.

Massed Attacks

To reflect the overwhelming effect of multiple units attacking a single unit, a "massed attack" rule has been implemented. If two or more units are adjacent to a unit, and one attacks, the attacking unit gains an initiative bonus of 1 for each other adjacent friendly unit. For example, if 2 units are adjacent, the attacking unit gains +1 — if 3 units are adjacent, the attacking unit gains +2 and so on. The defending unit gets the same bonus if it has friendly units present.

A B-17 completes its bombing run.

Using Artillery and Ranged Attacks

Since artillery units make ranged attacks, they can attack with no risk of losses by bombarding distant enemy units. After shooting, you can choose to move the artillery. Remember that units mounted in trucks or half-tracks fight poorly. Do not move the artillery too close to enemy units — use their ranged attacks to their advantage. Artillery are vulnerable to all attacks.

Units with ranges of one or more hexes can make ranged attacks, i.e., shooting at the enemy without the enemy being able to fire back (except that surface ships can shoot back using indirect fire when shot at by other ships). Units with a range of 0 must attack into the target unit's hex, giving the defending unit the opportunity to shoot back.

Supporting Fire

Under certain circumstances, units adjacent to the defending unit shoot at the attacker prior to normal combat. Artillery units contribute 'defensive fire' in support of any adjacent ground units. Air defense units contribute defensive fire for any adjacent ground units against air attacks. Fighters adjacent to defending bombers, or ground units, or assigned as CAP to an aircraft carrier may intercept attacking air units, but fighters may make only one interception per turn, and each attacking air unit may be intercepted only once. Each of the above events occurs before normal combat — the attacker cannot respond to defensive fire. Losses and suppression from defensive fire persist during the remaining combat. If the attacker has no more strength points in the firing order (all of them destroyed or suppressed), the attack is broken off immediately.

When a capital ship is attacked, it returns fire as normal against its first opponent. Every subsequent attack on the ship during the same turn, the return fire is 1/2 of the attack value.

Each time a unit shoots it uses one ammo point. Defending units can easily use up several points of ammo in a single turn when defending themselves or adjacent units.

Rugged Defense

A rugged defense can occur in two ways: (1) if a unit's movement takes it into the hex of a hidden enemy an ambush occurs (for air and naval units this misfortune is called "out of the sun" and "surprise contact"), which is automatically treated as a rugged defense, and (2) if an entrenched unit is subject to a non-ranged attack by a ground unit, there is a risk of a rugged defense based on the relative experience, the unit type, and the defender's entrenchment level. Repeated attacks on such a unit, however, reduce entrenchment level, forcing it out of good tactical position and give the attacker intelligence useful for further attacks. If the entrenchment level is 0, or if the attacker is an engineer unit, there is no risk of a rugged defense.

The concept of rugged defense represents ambush or the ability to open fire with surprise at close range, conditions which favor the defender and can devastate an attacker. Rugged defense really helps infantry, particularly well entrenched infantry. It is less effective against infantry, particularly experienced infantry. Ranger units have the special ability of being immune to rugged defense and an increased chance of inflicting a rugged defense on other attacking units when entrenched.

Terrain

Careful attention to terrain is well worth it. Rivers are probably the most significant obstacle and make excellent positions to defend behind. Bridging units are very helpful in terrain with many rivers, and few roads or bridges. Cities, besides being victory objectives and prestigious to capture and hold, are the next most significant obstacle because of the strength they offer the defense. In cities, swamps, mountains, and other dense terrain, opposing unit's initiative difference is minimized (because of the close range combat involved) and entrenchment and experience levels become key.

Cities, jungle, kunai, bamboo, bocage, swamp, hill, wet rice paddies, woods, and mountains also allow defending and attacking infantry to shoot against the assault defense number of the enemy unit as mentioned above (except that infantry attacking against infantry who succeed in putting up a rugged defense shoot at the defender's ground defense value).

Naval Gunfire Range

Naval gunfire during island scenarios is subject to a multiplier to represent the range of bombarding fire vs. the size of the islands.

Bombardment Damage

Battleships will lower entrenchment levels by 2 per each attack. Battleships inflict suppression just like Level Bombers.

Submarines in Submerged Mode

Submarines have two states in the sea: surfaced or submerged, controlled using the Mount / Dismount button on the Unit Menu. A submerged sub is more difficult to detect, and can surprise attack any unit that encounters it. The only unit that can attack a submerged sub is a destroyer. In submerged mode, a sub has a movement rate of 1/2 surface movement. Submarines may not change from surfaced to submerged or vice versa after moving. Submarines cannot enter Coastal hexes while submerged.

Submarine Evasion

Submarine units have a chance to dive from enemy attacks, and evade when submerged. This represents the submarines conning towers, and their ability to maneuver the sub to avoid the depth charges of a destroyer. The percentage chance of diving is influenced by the experience of the sub, while the chance to evade is influenced by the experience of the sub minus the experience of the attacker. Submarines have a chance to dive when attacked by air units, and a 50-75% chance to dive when attacked while on the surface.

Once submerged, submarines have a 5-50% chance to evade attack and take no damage.

Victory Conditions

Most battles are won by taking or holding some or all of the Victory Objective hexes (depending on the scenario), which are represented by gold stars and Rising Sun symbols on the Game Map and by green or tan hexes on the Strategic Map. Naval scenarios generally have no victory objective hexes to take, and so require the destruction of some percentage of the enemy fleet. Some scenarios have victory requirements involving both victory objective hexes and enemy unit destruction. For example, the points lost when losing an objective hex might be offset by the number of points won for inflicting heavy damage on the opponent. You could fail to capture enemy objectives by the end of the scenario, but based on your total obliteration of enemy forces, you would still walk away with a victory.

Victory hexes can have different values assigned to them. For example, a village victory hex may have 200 prestige points assigned to it, while Peking may have 500 prestige points assigned to it.

U.S. Marines advance on Namur.

Capturing towns that are not Victory Objectives gains you prestige points, but does not affect the victory conditions, so you should always focus on capturing the objectives you have been ordered to take. Only units of the tank, anti-tank, recon, and infantry classes can capture cities, ports, and airfields, although other troop types can occupy them and prevent their use by the enemy. To qualify as capturing a victory objective hex, the unit must end the turn in the hex.

SUPPLY RULES

There are two types of supply: ammunition and fuel. Each time a unit shoots, it uses one point of ammo. Every movement point a unit uses costs it one point of fuel during the day and in good weather.

When the ground is covered with snow all non-air units use two fuel points for each movement point — air units that are not on or adjacent to airfields use fuel equal to at least one-half of their movement capability every turn, but are not affected by snow limitations.

During night turns, all units use twice the normal fuel points per hex.

Units which run out of ammunition cannot attack. Units which run out of fuel attack and defend at 1/2 the value shown on their strength indicator.

PT Boat on patrol somewhere in the South Pacific.

Automatic Resupply

If the Supply preference is selected from the Options Menu, the following automatically resupply: air units which are on or adjacent to paved airfields or over dirt airfields, naval units which are in port, and ground units which have not acted. Ground units may not resupply fully, however, if there are enemy units adjacent to them and if they are not in a town. The resupply rate is limited by the proximity of enemy units, terrain, and bad weather.

Air units which are out of fuel and not in the supply zone to an airfield or carrier are eliminated.

Ground units normally receive half of their ammo and fuel maximums during resupply. Units receiving Replacements automatically receive resupply. If the Supply toggle is off, running out of fuel or ammunition has no effect.

Weather Effects on Supply

If it is raining or snowing and a unit is not in a friendly city, port, or airfield, the unit gets less supply. If there are more than two adjacent enemies, the unit may not resupply. Units also get less supply in the desert.

Refueling Air Units

Air units automatically refuel when over or adjacent to a friendly paved airfield, over a friendly dirt airfield, on CAP, or when on board a friendly aircraft carrier. Aircraft are capable of flying beyond their safety range — the fuel gauge in the upper-left corner displays a red warning light when there is nowhere to refuel within the aircraft's range.

Air units that run out of fuel which are not on or adjacent to an airfield or over an aircraft carrier crash and are destroyed.

Replacements

Don't let units fight until destroyed — if they can be recovered with even one strength point left, they can be rebuilt more cheaply per strength point than buying a new unit (even if using elite replacements) and get to keep their experience as a bonus. This represents the importance of veteran cadres to the performance of new recruits.

The importance of preserving units has many tactical implications. One is to ensure that units which risk heavy losses shoot before moving so they can retreat to safety if grievously weakened. The corollary of this principle is, of course, to mercilessly wipe out crippled enemy units to keep the enemy from rebuilding them.

Prestige Points and Purchasing Units

Prestige points represent the influence you have earned with the high command by taking and holding Victory Objectives and cities, destroying enemy units, and winning battles as quickly and decisively as possible. In the same manner, however, losing cities and battles reduces your prestige. You can exchange prestige points for new units, replacements, and new equipment for existing units. Note that you must pay the full prestige cost of new equipment even if the cost of the new equipment for a unit is less than that of the old equipment given up. The prestige awarded the AI will be proportionally adjusted for the number of victory hexes the player has taken.

Prestige Costs

The prestige cost of units only roughly correlates with their effectiveness, so examine combat values closely before purchasing or upgrading equipment. Remember that an expensive purchase or upgrade has to be balanced against the need for enough prestige to afford elite replacements for your core units during a tough battle.

Maximum fuel capacity and especially maximum ammo capacity need to be carefully examined. This is more of a constraint if the unit is advancing than if stationary on defense. Remember that a unit can easily use up several rounds of ammo in a turn if repeatedly attacked, or if providing defensive fire in support of adjacent units that are being attacked.

Assault defense is another statistic that you can regret having overlooked if the unit runs into infantry in the woods, jungle, and city hexes common to most battlefields, because you defend using your close defense rather than ground defense value. Make sure to check enemy unit types and strength.

Start by comparing your attack values and defense values against each other to see who has more destructive potential in a fair fight. Then compare initiative values to see who is more likely to initiate combat first, bearing in mind that unit experience can count for as much as 3 initiative levels.

Experience tends to be very important in fighter combat, where initiative values don't differ much and where attack values are high relative to defense values — the better pilot often gets in a devastating first shot. It is less important in early-war tank combat, where attack values tend to be lower compared with defense values.

Purchasing Ground or Air Units

The class buttons, in a column down the left side of the screen, display the unit types available in a particular class in the Selection panel. For example, left-clicking on the infantry button displays five different types of infantry available at this period in the war — you can only purchase units that were in use at the time. The currently selected unit has a pale blue rectangle around it, and the unit type's statistics appear below. Once a unit has been paid for by left-clicking on the Purchase button, the unit appears in the Roster panel above the Selection panel. Arrows at the upper left of both Selection and Roster panels allow for scrolling through more units if they are available to be viewed.

There are two toggle switches in the top left-hand corner, the Land/Air and Naval toggle switch changes the left-hand column of class buttons below it between land units or air and naval units. The Axis and Allies toggle switch changes between selecting troops for one side or the other in Battle Generator — while playing a scenario or campaign it does not function.

New Equipment Available

When new units become available for purchase, they appear in the selection panel. This is the ideal time to upgrade core units if the prestige is available.

Assign Organic Transport

To the right of the Unit Statistics display, are three smaller panels. If a selected unit is capable of having "organic" transport such as a truck or half-track, icons for the transport appear in the top panel which is double height to accommodate two types of transport. The unit type itself appears in the second panel. To purchase a unit with transport, left-click on the type of transport desired in the panel, and left-click on the Purchase button. Clicking on the selected transport de-selects it in order to purchase that unit without transport.

When organic transport is purchased for a unit, it appears in the bottom panel when the unit is selected from the roster panel, and the unit's statistics when mounted in that transport appear in the Statistics Display, to the right of the regular statistics.

On the far right-side, are the Purchase, Disband, Upgrade, Next and Previous screen buttons. Above these buttons is the cost of the currently selected unit, and above that is your current prestige point total.

Core and Auxiliary Units

During a campaign game, units under your command are divided into "core" and "auxiliary." Core units stay with you from battle to battle, unless destroyed. Auxiliary units are assigned to you in each campaign scenario to supplement your core forces — for example, aircraft units and artillery support are often assigned as auxiliary units. The toggle switch determines when a new unit is to be purchased as core or auxiliary when you have both types of openings in your roster.

Core units are further divided by whether they are naval or land units. This distinction prevents limits on core units from interfering in a land scenario where no naval units take part, or a naval scenario that does not feature an amphibious assault.
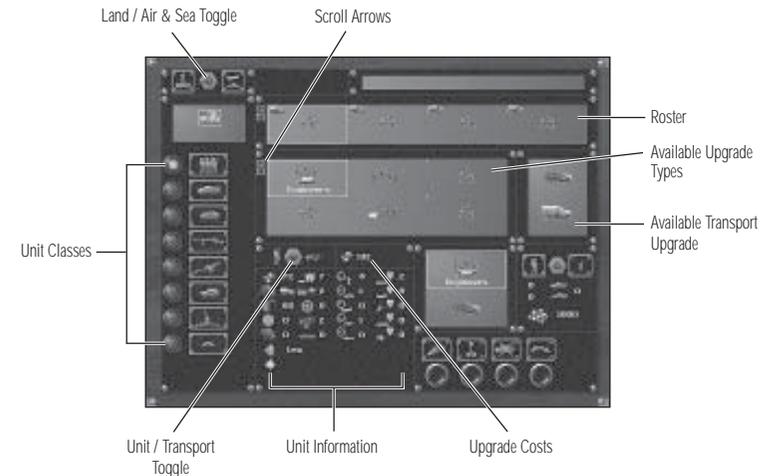
Upgrading Units

You can only upgrade units when deploying for a campaign scenario or during a scenario when a unit is in a friendly city (or, in the case of air units, over a friendly airfield) with no adjacent enemy units. Select the unit to be upgraded in the Roster panel of the Purchase screen. If adding transport or upgrading to another unit type, left-click on the vehicle or unit you desire and the blue selection box appears. Left-click again and the selection box disappears disabling that choice. Click on the Upgrade button to upgrade. Upgrading costs prestige points and expends that unit's turn. You can remove a transport by simply clicking on it to de-select it, thus removing it.

Overstrength Units

A unit with an experience level of 1 or greater (a full gold star or 100 experience) may be made overstrength by adding elite replacements when it is already at 10 or more strength points. Each time the player takes elite replacements under these conditions the strength of the unit increases by 1. Experienced units may also be made overstrength before the beginning of a campaign scenario.

Improving units to overstrength status is a combination of numbers and quality that can smash some enemy units with a single attack. Building up to overstrength takes time, however, and artillery and air bombardment against you have the annoying effect of cutting these units back down to size.

NAVAL RULES

Capital Ships

PACIFIC GENERAL introduces a different kind of unit to represent that particular combination of manpower, size and lethality known as the capital ship. A capital ship is defined as a single object, rather than as a grouping of men and equipment, and includes the classes of battleship, heavy cruiser, aircraft carrier, and submarine. As such, capital ships are subject to several additional rules which differentiate them from other units.

Strength Points

All surface capital ships have a strength rating of 15, submarines have 10. Damage done to capital ships comes in two varieties, kills and wounds which could be abstracted as critical damage and superstructure damage. A combined total of kills and wounds equal to or greater than the unit's current strength destroys the unit. Capital ships cannot be made overstrength.

Critical Hits

Capital ships are the only units that may have a chance to be critically hit. To add flavor to the naval scenarios, there is a chance to critically hit a capital ship with any successful hit. Only one critical hit may effect a unit at a time. Critical hits are displayed on the unit with a marker, and referred to on the unit information screen. The damage control for repairing a critical hit is affected by the experience of the unit.

Capital Ship Repair Option

Capital ship units cannot repair damage that is done to them through the usual method of Replacements or Elite Replacements. To reflect the effect of damage control teams aboard ships, capital ships will have the option to repair. This action takes the unit's entire turn, but has some strong effects to the strength of the ship. Normally, one turn of a critical hit duration is subtracted at the end of any turn. By selecting the repair button, the ship reduces the critical hit duration by 2, and reduces the wounds by one. This is in addition to damage repaired automatically by damage control. Some damage can only be repaired between scenarios.

Critical Hit Charts (for Naval Scenarios only)

Critical hits on Capital ships add flavor to the naval scenarios. The percentage chance to critically hit a unit has modifying factors such as the experience of the attacking unit and the experience of the defending unit. Critical hits can be repaired, at a rate determined by the type of hit, and the experience of the unit. Only one critical hit may be recorded on a unit at a given time. Damage control can eventually reduce the effects of a critical hit, and the Repair option can reduce the effects even more rapidly.

Chance of Critical Hit

Battleship	5%
Aircraft Carrier, Light or Heavy Cruiser	10%
Sub	20%

Results of a Critical Hit (d100)

Carrier

01-05	Magazine Explosion — Ship destroyed.
06-20	Engine Room — Move allowance -2. Duration = 2 turns.
21-40	Magazine Damaged — Ship cannot attack, ammunition supply is -20. Duration = 3 turns. Unable to rearm aircraft.
41-50	Flooding — Move allowance -2 — 10% chance that the ship capsizes and sinks, else 1-2 kills. Duration =3.
51-60	Steering Damaged — Move allowance is 1, torpedo defense is reduced. Duration = 3.
61-65	Fuel Bunker — Fuel -20, 4 wounds. Duration = 1.
66-75	Power Plant — Number of AA shots at 75%, number of additional shots 50%. Duration = 4.
76-81	Airplane Fuel Bunker — No air operations, 1 kill. Duration = 3.
81-85	Hanger Fire — 1-4 air units damaged to half, 1 kill per air unit damaged.
86-100	Elevator/OOA — Carriers cannot store more than 1 unit in hangar, ship is still able to launch. Duration = 3.

Submarines

01-10	Hull Crushed — Ship destroyed.
11-20	Flooding — Must surface, 1-2 kills. Duration = 3-6.
21-25	Conning Tower — Spotting -1. Duration = 3.
26-45	Torpedo Tubes — Submarine cannot attack. Duration = 4.
46-65	Diving Planes — May not surface or submerge. Duration = 3.
66-75	Sea water In Battery Compartment — Must surface. Duration = 2.
76-80	Leaking Oil — No hidden movement, no evasion, 1 wound. Duration = 6.
81-85	Leaks in Hull — Defense is 50%, 5 wounds. Duration = 5.
86-90	Prop Damaged — Movement is at 50%, 1 wound. Duration = 2.
91-100	No Extra Damage.

Continues...

Heavy Cruiser or Battleships

01-05 Magazine Explosion — Ship destroyed.

06-20 Engine Room — Move allowance -2. Duration = 2 turns.

21-40 Magazine Damaged — Ship cannot attack, ammunition -20.
Duration = 3 turns.

41-50 Flooding — Move allowance -2 — 10% ship capsizes, else 1-2 kills.
Duration =3.

51-65 Steering Damaged — Move allowance is 1, torpedo defense is reduced.
Duration = 3.

66-70 Fuel Bunker — Fuel -20, 4 wounds. Duration = 1.

71-80 Power Plant — Number of AA shots at 75%, number of additional
shots 50%. Duration = 4.

81-85 4 wounds.

86-90 6 wounds.

91-100 Turret Knocked Out — 1 kill, 3 wounds.

Aircraft Carriers

Aircraft carriers can carry up to 7 planes. The carrier hangar bay window can be viewed using the Special button from the Unit Controls. The hangar window displays the carrier's hangar capacity as slots for the number of planes that the carrier can hold. Planes are launched by selecting them and left-clicking on the Launch Plane button. Aircraft carriers with planes stored in hangar bays are indicated by a blue dot symbol next the unit's strength indicator.

If a plane ends movement over a carrier, the plane lands and is placed in the carrier's hangar. Planes can land on a carrier at night, but have a chance to crash into the sea. The percentage chance to land safely is influenced by the planes experience.

Combat Air Patrol

Fighters in a naval scenario may be applied to a Combat Air Patrol (CAP). A CAP of up to seven fighters may be assigned to any aircraft carrier, or battleship. The CAP moves with the assigned ship, and are removed off CAP only after intercepting an enemy unit. All of the units on CAP move as fast as the slowest moving unit, in most cases, the naval unit. The CAP move along with the naval unit it escorts at the same time that the naval unit moves. CAP is represented on the plane with a small blue dot. Fighters on CAP are refueled automatically.

UNIT EQUIPMENT STATISTIC DESCRIPTIONS

Class of Unit Equipment

This indicates the unit class (infantry, tank, recon, anti-tank, artillery, anti-aircraft, air defense, fighter, tac bomber, level bomber, fortification, destroyer, capital ship, submarine, carrier). Class controls all rules common to other units of that class — there are also special rules that apply to classes.

Cost

The prestige point cost of building a new unit of this type.

Fuel

The current amount of fuel, followed by the amount of fuel the unit type begins with.

Movement Mode

The number of movement points this unit has followed by its movement mode. For example units with the Deep Naval limit cannot enter coastal hexes. The different methods of movement units may use are: leg, gun, half-tracked, tracked, all-terrain, coastal naval, deep naval, and air. Naval units with coastal naval movement can enter coastal hexes — deep naval movement mode units are restricted to deep water hexes. Units with leg movement have no fuel rating, and can acquire organic transport for speedier movement.

Target Type

There are five target types: Soft, Hard, Plane, Submarine, and Naval. Each unit has a separate attack value against each type of target.

Spotting

The hex radius within which a unit can spot all enemy units in fair weather. Note that there are no terrain restrictions on spotting — for example, a mountain hex does not block spotting beyond it.

Initiative

In combat, the unit with the greater initiative attacks first although all results are applied simultaneously. The unit winning initiative gains a +4 bonus to its defense value. In the case of identical initiative, attacks are simultaneous. Experience and the terrain of the defending unit modify initiative values, as does the number of friendly units adjacent to the defender.

Soft Attack

The unit's attack value against "soft targets" such as infantry, some trucks, and towed weapons.

Hard Attack

The unit's attack value against "hard targets" such as tanks, recon, and half-tracks.

Air Attack

The unit's attack value against air targets.

Naval Attack

The unit's attack value against naval targets, and surfaced submarines.

Sub Attack

A unit's attack value against submerged submarines.

Ground Defense

The unit's defense value against attacks by land and naval units.

Air Defense

The unit's defense value against air units.

A Day of Infamy: Bombs explode on Battleship Row.

Assault Defense

The unit's ability to defend itself in disadvantageous situations. These situations result when a unit unexpectedly encounters an enemy, and are announced by the game as "Rugged Defense!" When any unit attacks infantry which puts up a rugged defense, the attacking unit uses its assault defense value. When combating infantry in certain types of difficult terrain, ground units suffer the handicap of using their assault defense values. Infantry do not retain this advantage when they are in clear terrain. Since assault defense values are usually less than ground defense values, this makes infantry more dangerous in favorable terrain.

Certain types of terrain are considered close terrain. Whenever an attack is made into this form of terrain by a ground unit, and either opponent is infantry, then the assault defense is used by the infantry's opponent. Anytime a bunker is an infantry's opponent and the bunker is not defending as ambush or rugged defense, then the bunker uses its assault defense. Also any time an ambush (or rugged defense) occurs, or the defender is infantry, then the attacker uses his assault defense. Close terrain hexes are: cities, ports, forest, jungle, kunai, bamboo, bocage, rice paddies in season, swamp, hill, mountain, escarpment, jungle path, and fortified terrain (not a hex with a fort in it).

Torpedo Defense

Naval unit's defense against attacks from submarines and destroyers. This defense is not used against attacks made by torpedo bombers.

Depth Charge Defense

A submarine's defense value while submerged against depth-charge attacks made by destroyers.

Experience

Each time a unit takes part in a combat it gains experience, and the more successful it is in combat, the more experience points it gains. An experience level is symbolized by a star in a unit's summary information. The maximum experience level a unit can achieve is 5. When two units fight, their relative experience levels affects determine relative casualties. Experience also determines overstrength size, reduces the risk of rugged defense, and modifies initiative. Units with 2 or 3 experience levels should be considered veteran troops and those with 4 or 5 levels elite troops. Elite replacements should be used to preserve the quality of veteran and elite units. Making veteran and elite units overstrength is valuable because they are better able to withstand and inflict casualties in combat.

In addition to getting a chance of shooting first, experienced units lose fewer casualties and inflict more casualties than would otherwise be the case. Units gain experience by fighting, and gain the most by damaging more experienced enemy units.

Strength

The majority of units begin with 10 strength points, surface capital ship units begin with 15 strength points. Losses are suffered in strength points, and a unit reduced to 0 strength points is destroyed. Units with experience, other than capital ships, can have their maximum strength increased by 1 per experience level, up to a maximum strength of 15 points at 5 experience levels. Units can add overstrength points at a rate of one per turn by selecting elite replacements. If you lose strength, rebuilding the unit to overstrength status must be done the same way. Overstrength units are very potent in battle. Units can also be overstrengthened during campaign game deployment

Kills

The number of enemy units a unit has destroyed in the current scenario or, over the course of a campaign.

Ammo

The units current ammunition level followed by the total ammunition capacity.

Range

The unit's shooting range in hexes. A range of '0' means that only targets adjacent to the unit can be attacked. Destroyers may only attack submerged submarines they are adjacent to, regardless of their range value.

U.S. carrier pilots ham it up.

Transport

If a unit has organic transport, statistics for the unit's values while mounted are displayed next to or instead of the unit's normal statistics. When a unit has mounted or embarked in a transport, that unit uses the attack and defensive ratings of the transport. In general, units are vulnerable when in transport. A unit must abandon organic transport in order to embark on air transport.

Container Max

This applies to aircraft carriers and indicates their hangar capacity.

Special Abilities and Technology

Any special ability or technology such as Night Optics or Radar are displayed here. Special abilities or technology cannot be purchased separately, they always come as part of the unit's basic cost. Units can be upgraded to take advantage of new technology. During the Campaign Game, some units without a special can be upgraded to the same type of unit with the special when it becomes available.

ADA Support

Some advanced Air Defense units are capable of protecting units in adjacent hexes as well as those stacked in the AA unit's hex. Some naval units provide air defense as if they were air defense units.

Paratroops

Paratroops can deploy from air transport into any of the six surrounding hexes. They may be subject to drift.

A Corsair fires rockets at Japanese ground targets.

Engineer

Engineer units can act as bridges for other units, and ignore entrenchments.

Bunker Killer

Units with the Bunker Killer special ignore entrenchment levels for fort units and gain a +4 to their attack value against fort units (as opposed to fortified hexes).

Pure Tac

Pure Tac represents aircraft that cannot initiate attacks on other air units.

Torpedo Bomber

This special ability allows an air unit to attack a naval unit from an adjacent hex rather than having to enter the hex of its target. Both units must be in ocean hexes.

Radar

Ships and aircraft equipped with the Radar technology ignore most of the restrictions caused by night turns. Ships with radar attack at full value against other ships, ignore spotting range reduction, and initiative limits caused by night. Aircraft with radar ignore strength reductions when attacking at night.

Night Optics

Ships with the Night Optics technology ignore spotting reductions on night turns and automatically gain initiative on enemy naval units not equipped with Radar.

Banzai

Japanese infantry with this special make a comparison of their attack value against the defense of another infantry or artillery unit; if the attack value is 4 or more points less than the defense value, the Banzai unit gains +4 attack value and -4 defense value.

Guide

Units with this ability, and units in adjacent hexes, ignore movement costs for jungle, forest, and bamboo, treating those hexes as clear terrain hexes.

Ranger

Ranger units are immune to "Rugged Defense" combat, and have 20% bonus to their ability to inflict a Rugged Defense combat on an opponent.

Fearless

Fearless units never retreat. In combats where a retreat result occurs, they suffer +1 strength loss instead.

Sonar

The Sonar special increases the chance to spot submarines traveling submerged by 20%.

Kamikazi

These are units whose high attack values make them extremely dangerous to other units. At the end of any attack they perform they are destroyed.

Frogman

These are submarine class units that are immune to depth charge attacks. These units can never be purchased in scenarios or campaigns they are assigned for specific use. They can be used when building scenarios using the Battle Generator.

HQ

This special is assigned to "fort" units in particular scenarios to allow units to be purchased on maps where no cities exist. These units can never be purchased in scenarios or campaigns they are assigned for specific use. They can be used when building scenarios using the Battle Generator.

Guard

Guard units are elite troops. Guard units are more likely to cause units they face to retreat.

UNIT CLASS DESCRIPTIONS

All pieces of equipment, referred to as units, are grouped into one of 18 different classes of equipment in PANZER GENERAL. Below is a list describing the classes, types available within each class, and their tactical role.

Ground Classes

Anti-Aircraft

The primary use of the anti-aircraft (AA) class is to respond quickly to enemy air units. Unlike the air defense class, AA units may fire and move or visa versa and can attack ground units. AA can keep up with a quick moving attack force, and if properly used, assist in mopping up enemy infantry. Protect AA from enemy tank, anti-tank, and artillery units and you may find them very useful. Unlike air defense units, AA must be in the same hex as enemy air units to attack them. AA units have no effect on level bombers.

Air Defense

Like artillery, air defense units cannot attack after they have moved — unlike artillery, however, they cannot attack ground units. They are ideally suited for defending relatively stationary ground units against enemy airpower in defensive battles, but given time and proper protection, they can also be useful when brought up to support your offensives by fending off enemy aerial counterattacks. Because of their ranged attack and protective fire capability, well placed air defense units can keep enemy aircraft at bay around a vital city, or protect a difficult ground assault from disruption.

Anti-Tank

The anti-tank (AT) class is divided into two unit types: towed anti-tank weapons and self-propelled anti-tank weapons (often referred to as "Tank Destroyers" TDs). The towed type are excellent on defense, especially if heavily entrenched, but their vulnerability while being towed by trucks or half-tracks makes them difficult to use effectively on the attack. When attacking, use tank destroyers instead. TDs are much cheaper than tanks for the equivalent gun size, but less well-armored and lack a rotating turret. This means that they can use their initiative to get in the first shot when defending against tank attacks, but always fire second when attacking tanks themselves. This makes attacks on tanks risky unless they are already seriously weakened. The key to TD tactics against tanks is moving offensively but fighting defensively — rather than attacking enemy armor, move TDs into positions where the enemy armor is forced to attack you. For example, while your tanks strike deep through enemy lines, TDs can be used to block enemy armored counterattacks on the flanks of the advance. Although their intended purpose is to fight tanks, TDs make excellent tank-substitutes for overrunning other troops.

A B-29 preparing for take-off. Destination: Japan.

Artillery

Artillery cannot attack after moving. Artillery units, like anti-tank units, are divided into towed and self-propelled categories, but the difference is less significant because they are too vulnerable, even when armored, to confront the enemy directly — their role is instead to bombard the enemy from a distance in support of other friendly troops. The main advantage of self-propelled artillery is that it can keep moving without having to mount and dismount. Towed artillery, in comparison, is very vulnerable and unable to fire in defense of itself on adjacent enemy units. Artillery is suitable for softening up enemy soft targets prior to an offensive attack (even if they inflict no losses, each bombardment attack reduces the enemy's entrenchment level), and equally valuable because of their ability to provide defensive fire when adjacent ground units are attacked by enemy ground units. Artillery is best deployed immediately behind friendly units where it can support them on both offense and defense. Artillery support is especially critical if you want your infantry to have a chance of stopping armored attacks in the open.

Fort

The fort class is divided into two types: "forts," which are networks of immovable, strongly-built heavy artillery and infantry positions, and "strongpoints," which are lighter networks of pillboxes and light field fortifications. Since forts have ample reserves of ammo and strong attack values, they should shoot aggressively at any enemy that approaches. A combination of artillery and aerial bombardment followed by an assault by engineer or pioniere units is the proven method of capturing enemy forts and strongpoints that cannot be bypassed. Forts may only be purchased in the Battle Generator.

U.S. Marines raise the flag at Iwo Jima.

Infantry

The infantry class consists of several different types of units. Infantry are the most common troop type in any army and are the most versatile. Their advantage lies not in their speed but in their ability to fight in cities, forests, and other difficult terrain without the penalties suffered by most other classes. Although vulnerable to artillery fire and armored vehicles when in open terrain, they are almost impossible to dig out of well-entrenched defensive positions unless attacked by other infantry and artillery in coordination. Even the most powerful armored offensive can be halted or seriously delayed by a single well-positioned and well-entrenched infantry unit if the armored units lack proper support.

Units with the Engineer special are excellent at assaulting heavily entrenched positions because their special training and equipment enables them to avoid the risk of a rugged defense. They serve as a bridge for other friendly units while dismounted in a river hex. Paratroops are lightly-armed but highly-trained infantry able to paradrop from air transports. Heavy weapons infantry have higher attack values than ordinary infantry and so are more suitable for assault roles, but move more slowly, making them prime candidates for transporting. Cavalry in this period are actually mounted infantry, with relatively low combat values, but high mobility without the expense and vulnerability of organic transport.

Recon

The recon class consists of highly mobile but lightly armored units with superior spotting ranges (which is very important if using realistic spotting rules). They can pinpoint the location of enemy units, seize and hold cities and other objectives temporarily, and successfully attack weakened enemy units and vulnerable units such as units mounted on organic transport. Recon units are most useful in offensive battles, and having one as a pathfinder for each major advance saves you time and helps you avoid ambushes.

Tank

Because of its speed, armor, and heavy weaponry, the tank class is most able to take aggressive risks and survive. But beware of overconfidence — although tanks dominate open country, they are vulnerable to infantry in cities, forests, and rough terrain — can be stopped by anti-tank guns and tank destroyers — and require air support when the enemy is able to use tactical bombers against them. A successful general does not win with tanks alone.

Truck

The truck class includes trucks, half-tracks, and a few fully-tracked vehicles used as organic transport (i.e., it is specifically assigned to a unit and cannot be shared). Organic transport is useful for giving otherwise slow units greater mobility but, while mounted, units use the weak combat values of the transport and are easily destroyed. Troops moving by truck should therefore be protected from enemy ground and air attack at all times. Trucks are faster on roads, but half-tracks have a higher defense and move more quickly in difficult terrain.

Air Classes

Air Transport

Most scenarios include a pool of air transport points. Air transport is non-organic transport which allows infantry, light artillery, and light anti-tank units to embark at friendly airfields and disembark at any unoccupied airfield (enemy airfields may be seized in this way). Paratroops can "jump" in any legal hex. See the "Embark/Disembark" description in the Unit Control on page 67 for information about transporting units by air. Note that air transports are highly vulnerable to both enemy fighters and air defense units and require fighter escorts, particularly for paradrops behind enemy lines.

Fighter

The tank and the airplane were the decisive new weapons of the war, and the fighter class is your key to obtaining air superiority. The fighter class is highly effective attacking enemy air units, and is able to protect adjacent friendly bomber and ground units through its ability to intercept air missions against them. Fighters can strafe infantry, artillery, and transport units with some effect and help soften up entrenchments, but their primary mission is to clear the skies of enemy fighters and enemy bombers. Losses in fighter combats are typically heavy, so getting the first shot through superior initiative and experience is critical. Fighters equipped with the "Radar" special technology are able to fight during night turns.

Level Bomber

The level bomber class consists of high-altitude, long-range bombers with large bomb loads but limited accuracy. They attack by "carpet bombing" ground targets including cities, ports, and airfields. They tend to suppress rather than destroy targets, but this is advantageous because enemy units suppressed by your level bombers remain suppressed for the entire turn. Successful attacks by level bombers reduce fuel and ammo points of enemy units. Level bombers and battleships are the only class that can assist other units' attacks by inflicting prolonged suppression.

Level bombers only attack the hex they are in, and are immune to all ground units except for air defense units. When they bomb a victory hex, located in a city, port, or airfield, they inflict prestige damage on the enemy. If not a victory hex, there is a chance of destroying its usefulness (which is represented in the game when it converts to neutral ownership). Only dismounted infantry can recapture/repair a neutralized city, port, or airfield.

Level bombers are the only air units without the "Radar" special technology allowed to attack during night turns.

Tactical Bomber

The tactical bomber class includes aircraft designed for ground attack, which can only attack ground targets — and fighter-bombers, which can also attack enemy air units (though they are generally less effective than fighters). Tactical bombers are useful against a variety of targets, including vulnerable targets such as transport and artillery, but also against more difficult targets such as the submarine, tank, and anti-tank classes. Tactical bombers can also be used to soften up entrenched positions. Note that fighter escorts are essential to the survival of tactical bombers if the enemy possesses fighters.

Leathernecks taking the beach at Iwo Jima.

Torpedo Bomber

The torpedo bomber is a special type of attack bomber that carries a torpedo instead of a large bomb, specifically for attacking shipping. Torpedo bombers have the special ability of being able to attack ship targets from an adjacent unoccupied sea hex.

Sea Classes

Capital Ship

The surface capital ship class (including battleships and heavy cruisers) have the ability to make ranged attacks, and may move and shoot in either order. They are best used to defeat the enemy fleet, but after a naval victory can support the ground forces with off-shore bombardment, especially against soft targets. Capital ships shot at by other capital ships are entitled to shoot back with a ranged attack with any surviving unsuppressed strength points for the first attack, and at 50% for all successive attacks in that turn. Light cruisers serve the same role as capital ships, but may enter coastal hexes.

Carrier

The carrier class acts as a mobile airfield for fighters and tactical bombers, but, unlike airfields, carriers can resupply only air units which are on board. Carriers have excellent spotting ranges but are vulnerable to naval attacks, and their high cost makes them very attractive targets in terms of prestige.

An aerial view of Battleship Row under attack by Japanese aircraft.

Destroyer

The destroyer class consists of destroyers, destroyer escorts, patrol craft, and torpedo boats. Destroyer class units are the only naval units able to attack submerged submarines, and always attack first against submarines they attack during their turn, but are easily destroyed by capital ships. Use screens of destroyer class vessels to protect heavier ships from submarines. Together with tactical bombers, they can form effective sub-killer task groups.

Sea Transport

Sea transport is extremely important in amphibious invasion scenarios. Sea transport is non-organic transport which allows ground units to embark at friendly port facilities or coastal cities and disembark in any unoccupied coastal hex. See the "Sea Embarkation" section on page 67 for more information. Note that sea transports should be protected by naval and air covering forces because they are highly vulnerable to enemy naval units and, to a lesser extent, to enemy tactical bombers.

Submarine

The submarine class can be deadly against enemy heavy naval units because destroyer class naval units are the only units that can attack them while they are submerged. Submarines always shoot first when they attack during their turn if they are submerged. When submarines are attacked, they are often able to evade the attack if they are operating submerged.

APPENDIX A — STRATEGY NOTES

Tactics Checklist

Remember that in PANZER GENERAL:

• Clicking activates buttons and units in hexes.

• Clicking on a unit makes it ready for orders.

• All buttons appear along the sides of the screen, and button descriptions appear in the top center section of the screen when you pass the mouse pointer over them.

• When a unit attacks, it uses one unit of ammo. When it's out of ammo, it can't attack another unit, and must resupply (when not adjacent to multiple enemy units).

• Cities secondary to your battle objectives should only be attacked if in the direct path of your units. On the other hand, in later scenarios, risking units to capture other cities gains you more prestige points.

• All units have movement points which are expended as the unit moves. Each hex costs a number of movement points, based on the type of terrain entered. When you select a unit the legal hexes that unit may move to are highlighted. When you move units across rivers without using available roads or crossings, all movement points for those units are used.

• Replace weakened units even when they are close to enemy positions. It's better to suffer loss than annihilation.

• Mount units which have transports whenever possible, but be sure there is armored protection close by. A given unit can only embark on a naval transport at a pier or coastal city. Only infantry, light artillery, and light anti-tank units may use air transports at an airfield. Embarking or disembarking a unit can only be done at the beginning of the unit's turn. Naval transport units can disembark into an adjacent land square, air transport can only disembark at airports, while paratroopers can disembark anywhere. Disembarking ends the unit's turn.

• Replacements, Disband, Upgrade, and Elite Replacements can only be done at the beginning of the unit's turn. If any of these options are chosen, the unit's turn ends.

• Cancel Move returns a unit to pre-order status, and cannot be used after the unit has acted by attacking, resupplying, receiving replacements, and so on. Right-clicking after moving a unit deactivates the unit so that its move cannot be canceled. If it had already fired, this ends the unit's turn.

*Mission complete,
U.S. Marines take
Mount Suribachi
on Iwo Jima.*

- Even though the "Expected Losses" may not be in your favor, you may still need to sacrifice some of your unit strength to achieve your goals. This is especially important when attacking enemy units with high entrenchment levels. Even though the attack may not be effective, the enemy entrenchment level decreases by at least one point, and is more vulnerable the next turn.

- The enemy cannot place newly-purchased units around one of its cities if you have a unit adjacent to that city.

- Surround centers of resistance such as cities and strike deep beyond them to force the enemy to mobilize and defend its rear areas. This makes the bypassed cities easier to take than if you wore yourself down in an immediate direct assault on them. Placing troops next to the city prevents the enemy from building more units there.

- Use the Strategic Map to select good avenues of attack, preferably open tank country with few obstacles the enemy can use as defensive positions to hold up your advance.

- Organize your forces into objective-oriented battlegroups and, if necessary, separate city garrison units. Battlegroups should combine units with compatible movement speeds.

- Start each battle with a plan to deal with issues of naval and air superiority.

- Good siege tactics against heavily-entrenched troops are to bombard them with artillery to weaken their entrenchments, and to place friendly infantry units adjacent to the defending unit to prevent it from "replacing" its losses. When it is sufficiently weakened, the infantry units attack the defending unit, destroying it or forcing it to retreat. The city can then be occupied or captured by an infantry unit (or a tank, AT, or recon unit — artillery units cannot capture cities). It is very dangerous to try to attack cities with tank units, as they often suffer crippling losses in such unfavorable terrain for tanks. Tank units work best in the open against enemy infantry, cavalry, artillery, and tank units.

- Always destroy artillery supporting enemy units before attacking the supported units.

APPENDIX B — MOVEMENT POINT COSTS BY TERRAIN

TERRAIN	TRACKED DRY	TRACKED MUD	TRACKED ICE	HALF-TRACKED DRY	HALF-TRACKED MUD	HALF-TRACKED ICE	WHEELED DRY	WHEELED MUD	WHEELED ICE	LEG DRY	LEG MUD	LEG ICE	GUN (TOWED) DRY	GUN (TOWED) MUD	GUN (TOWED) ICE	AIR DRY	AIR MUD	AIR ICE
Inland City	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1
Coastal City	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1
Dirt Road	1	2	1	1	3	2	2	3	2	1	2	1	1	1	1	1	1	1
Paved Road	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1
Clear	1	2	1	1	3	2	2	3	All	1	2	1	1	1	1	1	1	1
Regular Forest	2	3	2	2	3	2	4	All	All	2	2	2	1	1	1	1	1	1
Dense Forest	2	3	2	2	3	2	4	All	All	2	2	2	1	1	1	1	1	1
Regular Jungle	4	All	All	All	All	All	All	All	All	2	2	2	1	1	1	1	1	1
Dense Jungle	4	All	All	All	All	All	All	All	All	2	2	2	1	1	1	1	1	1
Bamboo	4	All	All	All	All	All	All	All	All	2	2	2	1	1	1	1	1	1
Bocage	4	All	All	All	All	All	All	All	All	2	2	2	1	1	1	1	1	1
Kunai	1	2	1	1	3	2	2	3	2	1	1	1	1	1	1	1	1	1
Agriculture 1	1	2	1	1	3	2	2	3	2	1	1	1	1	1	1	1	1	1
Agriculture 2	1	2	1	1	3	2	2	3	2	1	1	1	1	1	1	1	1	1
Paddy, In Season	4	N/A	2	4	N/A	2	All	N/A	3	2	All	1	N/A	N/A	N/A	1	1	1
Paddy, Drained	2	3	2	2	4	3	4	All	All	1	2	1	1	1	1	1	1	1
Bank	1	2	1	1	3	2	2	3	2	2	1	2	1	1	1	1	1	1
Desert	1	1	1	1	1	1	3	3	3	1	1	1	1	1	1	1	1	1
Oasis	1	2	1	1	3	1	2	3	3	1	1	1	1	1	1	1	1	1
Swamp	4	N/A	2	4	N/A	2	All	N/A	3	2	All	1	N/A	N/A	N/A	1	1	1
Rough	2	3	2	2	4	3	4	All	All	2	2	2	1	1	1	1	1	1
Volcanic	2	3	2	2	4	3	4	All	All	2	2	2	1	1	1	1	1	1
Hill	2	3	2	2	4	3	4	All	All	2	2	2	1	1	1	1	1	1
Mountain	All	All	All	All	All	All	All	All	All	All	All	All	All	All	All	1	1	1
Escarpment	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	All	All	All	1	1	1
River	All	N/A	2	All	N/A	2	All	N/A	3	All	All	2	All	All	All	1	1	1
Beach	1	1	1	1	1	1	3	3	3	2	2	2	1	1	1	1	1	1
Pier	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1
Seawall	2	3	2	2	4	3	4	All	All	2	2	2	1	1	1	1	1	1
Tetrahedron	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	1
Reef	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	1
Coast	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	1
Deep Ocean	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	1
Dirt Airfield	1	2	1	1	3	2	2	3	2	1	1	1	1	1	1	1	1	1
Paved Airfield	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1
Bridge	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1

TERRAIN	DEEP NAVAL DRY	DEEP NAVAL MUD	DEEP NAVAL ICE	COASTAL NAVAL DRY	COASTAL NAVAL MUD	COASTAL NAVAL ICE	SUBMERGED DRY	SUBMERGED MUD	SUBMERGED ICE	ALL TERRAIN DRY	ALL TERRAIN MUD	ALL TERRAIN ICE	AMPHIBIOUS DRY	AMPHIBIOUS MUD	AMPHIBIOUS ICE
Inland City	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	1	N/A	N/A	N/A
Coastal City	1	1	1	1	1	1	N/A	N/A	N/A	1	1	2	2	2	2
Dirt Road	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	1	N/A	N/A	N/A
Paved Road	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	2	N/A	N/A	N/A
Clear	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	2	N/A	N/A	N/A
Regular Forest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	3	4	N/A	N/A	N/A
Dense Forest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	3	4	N/A	N/A	N/A
Regular Jungle	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	4	All	N/A	N/A	N/A
Dense Jungle	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	4	4	N/A	N/A	N/A
Bamboo	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	All	All	N/A	N/A	N/A
Bocage	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	3	All	N/A	N/A	N/A
Kunai	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	2	N/A	N/A	N/A
Agriculture 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	2	2	N/A	N/A	N/A
Agriculture 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	2	2	N/A	N/A	N/A
Paddy, In Season	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	All	N/A	3	N/A	N/A	N/A
Paddy, Drained	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	All	3	N/A	N/A	N/A
Bank	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	2	N/A	N/A	N/A
Desert	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2	2	2	N/A	N/A	N/A
Oasis	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	2	N/A	N/A	N/A
Swamp	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	All	All	3	N/A	N/A	N/A
Rough	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	All	3	N/A	N/A	N/A
Volcano	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	3	3	N/A	N/A	N/A
Hill	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	3	3	N/A	N/A	N/A
Mountain	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	All	All	All	N/A	N/A	N/A
Escarpment	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	All	N/A	N/A	N/A
River	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	All	All	2	2	2	2
Beach	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2	2	2	N/A	N/A	N/A
Pier	N/A	N/A	N/A	1	1	1	N/A	N/A	N/A	1	1	1	N/A	N/A	N/A
Seawall	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3	All	3	N/A	N/A	N/A
Tetrahedron	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Reef	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Coast	1	1	1	1	1	1	1	1	N/A	1	1	2	2	2	2
Deep Ocean	1	1	1	1	1	N/A	1	1	1	1	1	1	2	2	2
Dirt Airfield	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	N/A	N/A	N/A	N/A
Paved Airfield	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	N/A	N/A	N/A	N/A
Bridge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	1	1	2	2	2

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SSI Test Team	Garrett Graham, Kelly Calabro, Dion Burgoyne, Daniel Rivera, Jason Bredice, Jeremy Dang, George Chastain, Chris Lanka, Mark Schmidt, Nile Sabbagh, Sally Werner, Forrest Elam, Chris Smith
External Test Team	Judy Weller, John Taylor, Bill Snow, Michael Bell, Gordon Shenkle, Ed Certon, Bill Lott
Executive Producer	Dan Cermak
Graphic Design and DTP	Louis Saekow Design: Dave Boudreau & Jerrick McCullough

Special Thanks to: **Russ Brown, Steve Burke, Bob Coates, Bret Berry, Joel Billings, Chuck Kroegel, Brandon Chamberlain, Chris Carr, Dave Jensen, Rick Martinez, the staff at Music Annex, Greg Steil, Tom Foss, US Naval Institute**

WHAT TO DO IF YOU HAVE A DEFECTIVE CD OR DISK

Each of our games undergoes extensive playtesting prior to its release. Through this process we hope to uncover and correct any errors in programming. However, due to the complex nature of our simulations, some program errors may go undetected until after publication. In addition to errors in the program, there are occasionally problems with the media itself.

Should you have defective media, please return the disk or CD only (keep all other parts of the game) to our Customer Support Department, along with a note describing the problem you have encountered. Replacement media will be provided upon our receipt of the defective media in accordance with SSI's warranty program as set forth in detail above.

QUESTIONS OR PROBLEMS?

Our main business number is (408) 737-6800. **If you encounter disk or system related problems you can call our Technical Support Staff at (408) 737-6850 between 11 a.m. and 5 p.m., Pacific Time, Monday through Friday, holidays excluded**. NO GAME PLAYING HINTS WILL BE GIVEN THROUGH THIS NUMBER. You can write to us at: Strategic Simulations, Inc., 675 Almanor Avenue, Suite 201, Sunnyvale, CA 94086 Attention: Technical Support (include a self-addressed, stamped envelope for reply). We can also be reached online at the addresses listed on the datacard that came with the game.