

## I. Introduction

On the morning of December 7th, 1941 Japan set the spark to one of the most bitterly contested theatres of the Second World War. The devastating surprise attack at Pearl Harbor heralded the rising sun of a new phase in Japan's war of conquest and empire. Nearly five years, and hundreds of thousands of lives later, this empire would lay in ashes beneath the ominous glow of a second sunrise—the horrific atomic bomb attacks at Hiroshima and Nagasaki that finally ended the war and ushered in an era of America-mandated peace. Between these two rising suns, the vast conflict of the Pacific war was played out in hundreds of little known atolls, islands and jungle back ways that are now etched into the history of those desperate days.

After the stunning attack at Pearl Harbor, Japan went on to seize vast areas of the South Pacific in one swift victory after another. Only on the Philippines, where American and Philippine troops bravely held out in defiance at Corregidor, was the tide held at bay for a time while Allied British, Australian, Dutch and American forces struggled to consolidate and forge a line of resistance. While decisive naval engagements were being fought in the Coral Sea and later near Midway, allied forces mustered in distant outposts for the inevitable counterattack against Imperial Japan. In August of 1942 the U.S. Marines landed at Guadalcanal in the Solomon Islands and began the long march back on the road to Tokyo while forces from the ANZAC command threw down the gauntlet in New Guinea. Once engaged, the Allies were to find that the Japanese soldier would be the most resourceful and tenacious defender to be faced by any army in the war. As the line of battle raged from one isolated outpost to another in the Gilberts, Marshalls and Caroline Islands, the cost of victory climbed ever higher. From bloody Red Beach One at Betio in the Tarawa group, to Peleliu, Tinian, Saipan, Iwo Jima and Okinawa, more blood was spilled per square yard than in any other theatre of war. And to the east, the Philippine Islands and the malarial jungles of Burma were reclaimed in bitter contests where men on both

sides were pressed to the limits of endurance, as with the famous Merrill's Marauders in their backbreaking operations in the cruel hinterlands of Asia.

TalonSoft's *Rising Sun* takes the measure of all these battles in a series of carefully crafted scenarios that will take you from the defense of Guam to the bitter end at Okinawa. Along the way you will fight your way up the Kokoda Trail on New Guinea, command the Marines of "The Thin Red Line" at Guadalcanal, re-live the struggle for Luzon and MacArthur's triumphant Return to the Philippines in detailed linked campaign action. And for those who wonder what might have happened if the Allies had been forced to invade Japan, a hypothetical campaign in the Koshiki-Retto Island group and scenarios depicting landings on Kyushu carry the struggle onto the Japanese mainland itself!

When the action begins you will be treated to beautifully crafted 3D battlefields drawn from actual 1940 period maps, with many new terrain types introduced to depict the unique conditions of island and jungle fighting. Even the maze of island caves where Japanese defenders fought to the last man are depicted in new terrain types. Plan your overall strategy on two "God's Eye" 2D views, or take the plunge and play in varying 3D views to fight the battles with full "fog of war" effects that limit your knowledge of enemy dispositions and add realism. On a scale of 250 meters per hex you will command historically researched orders of battle, from small company actions to full regiments, brigades or even divisions. You will find every conceivable type of action in this generous scenario mix, from reconnaissance patrols, ambushes, meeting engagements, desperate beach assaults, grueling battles of attrition and sweeping maneuvers to clear enemy held areas.

Pit your tactics and strategy against a wily A/I opponent or take up a unique challenge against other *Rising Sun* aficionados in head to head, network or Internet play. Any way you play, however, you will soon find that *Rising Sun* is easy to learn, yet difficult to master. Each scenario consists of a number of Game Turns in which you and your opponent have an opportunity to move your troops and engage in combat. The capture of key objectives assigned by the scenario designer, and the ratio of casualties sustained by each side determine victory. While primarily a simulation of ground combat, *Rising Sun* adds many amphibious units for sea landings and supports combat with both air units and naval bombardment. And for those with an eye for the history, a set of editors will allow you to build your own maps and unique orders of battle to craft your own scenarios.

This latest addition to TalonSoft's gaming lineup will define a new standard for tactical combat in WWII. Re-experience the history, the valor and desperation that defined the War in the Pacific as *Rising Sun* salutes the bravery, dedication and great sacrifice of the soldiers who fought on both sides.

#### Attention Campaign Series Veterans!

The tutorial scenario (*Tutorial-Storming Wakde Island; Wakde.scn*) and write-up included with *Rising Sun* is not only an introduction for new players—it is also a fun and challenging scenario for veterans of TalonSoft's "Campaign Series" of games. Many of the new features of *Rising Sun*, as well as tactics and techniques helpful during play, are covered in this tutorial. Too, many frequently asked questions and issues from the TalonSoft CAMPAIGN SERIES discussion page are also covered.

All players are encouraged to begin playing this scenario while following along with the tutorial copy beginning on page 114 of this manual.

Good luck and enjoy!



## II. Table of Contents

|   |    |
|---|----|
| I. Introduction .....                     | 1  |
| II. Table of Contents .....               | 3  |
| III. Getting Started .....                | 5  |
| IV. Playing a Scenario .....              | 9  |
| The Game Interface & Pop-Down Menus ..... | 10 |
| Game Scale & Stacking .....               | 17 |
| The Tool Bar .....                        | 18 |
| Viewing the Map .....                     | 20 |
| Selecting a Unit .....                    | 21 |
| The Info Box .....                        | 22 |
| The Unit List .....                       | 25 |
| The Unit Handbook .....                   | 26 |
| Scenario Information .....                | 27 |
| Game Turns & Player Turns .....           | 28 |
| The Command Report .....                  | 28 |
| Combat and Movement .....                 | 29 |
| Moving a Unit .....                       | 30 |
| Transporting Units .....                  | 32 |
| Reinforcements .....                      | 34 |
| Organizational Movement .....             | 36 |
| Combat .....                              | 38 |

|  |     |
|--|-----|
| Line of Sight .....  | 39  |
| Direct Fire .....  | 40  |
| Opportunity Fire .....   | 41  |
| Indirect Fire .....  | 42  |
| Laying Smoke .....   | 43  |
| Air Attacks .....  | 44  |
| Assault .....  | 46  |
| Minefields & Engineers .....   | 49  |
| Combat Explanation .....   | 50  |
| Combat Results .....   | 52  |
| Morale Recovery .....  | 53  |
| Disruption Loss .....  | 53  |
| Night Combat .....   | 54  |
| Fortifications .....   | 56  |
| Terrain Types of <i>Rising Sun</i> .....                             | 59  |
| Concealment Values & Fog of War .....                                | 73  |
| Leaders .....  | 74  |
| Japanese Special Rules .....   | 75  |
| HQ and Supply .....  | 78  |
| How to Win .....   | 80  |
| Victory Conditions .....   | 82  |
| Optional Rules .....   | 83  |
| <b>V. Campaign Games</b> .....                                       | 85  |
| <b>VI. The Editors</b> .....   | 92  |
| The Map Editor .....   | 93  |
| The Order of Battle (OOB) Editor .....                               | 97  |
| The Scenario Editor .....  | 101 |
| <b>VII. Multi-Player Modes</b> .....                                 | 109 |
| Internet TCP/IP Play .....   | 109 |
| Modem and Serial Connection Play .....                               | 112 |
| Network IPX Play .....   | 112 |
| Two-Player Hot Seat .....  | 112 |
| Play by E-mail .....   | 113 |
| <b>VIII. Appendices</b> .....  | 116 |
| <i>Rising Sun</i> Tutorial .....                                     | 114 |
| The Basics of Infantry Combat in Campaign Series Games .....         | 144 |
| RS Scenario & Campaign Game Charts .....                             | 150 |
| Unit & Weapon Data Tables .....                                      | 152 |
| Japanese .....   | 152 |
| U.K./Commonwealth .....  | 161 |
| United States .....  | 170 |
| Aircraft of <i>Rising Sun</i> .....                                  | 183 |
| Military Symbols of <i>Rising Sun</i> .....                          | 184 |
| The Nations of <i>Rising Sun</i> (Nationality symbols & bases) ..... | 185 |
| <i>Rising Sun</i> Bibliography .....                                 | 186 |
| Index .....  | 188 |
| <i>Rising Sun</i> Credits .....                                      | 192 |

### III. Getting Started

There are a variety of ways to play TalonSoft's *Rising Sun*. The game now provides two types of campaign games that allow you to lead your command through one or more Western Front theatres of operations. However, it may be easier for you to start with one of our numerous pre-made scenarios based on actual battles that were fought. Additionally, *Rising Sun* provides a variety of editors to allow you to design your own scenarios from scratch; see section VI. The Editors.



#### Selecting Your Game

The main selection screen will allow you to choose which type of scenario you wish to play.

**Play Scenario:** Selecting this option will allow you to choose from a variety of pre-designed scenarios. For details on playing a scenario, see section IV. Playing a Scenario.

**Play Campaign:** Selecting this option will allow you to begin a "Linked Campaign Game" or choose a character and start a "Dynamic Campaign Game" of more randomized scenarios. For details on starting and resuming a campaign game, see section V. Campaign Games.

**Generate Battle:** Selecting this option will allow you to create the basic details of a scenario that will be created at random for you.

**Edit Scenario:** Selecting this option will allow you to create your own scenarios. For details on creating your own scenarios, see section VI. The Editors.

**Edit Map:** This option will allow you to create your own map for your designed scenarios. For details on creating your own maps, see section VI. The Editors.

**Edit Order of Battle:** This option will allow you to decide what units will be available to you in your designed scenarios. See section VI. The Editor.



The Scenario Types Screen

**Scenario Types and Player Options**

*Rising Sun* allows you to play scenarios individually or against a human opponent. For more information on multi-player games, see section VII. Multi-Player Modes.

First select the type of scenario you wish to play: Standard, Modem (Caller or Host), Play-by-E-mail or (two-player) Hot-Seat.

Select **Start a New Game** to proceed to a listing of our pre-designed scenarios.

Select **Resume Saved Game** to continue a previously saved scenario. **Note:** Do not select this option if you wish to continue a Campaign Game. To continue a saved Campaign Game you must select **Play Campaign** from the Main Menu.



The Scenarios Screen

## Starting a New Scenario

Scenario titles are listed in the large window in the upper left of the screen. The scenarios can be displayed in a variety of ways; e.g., by complexity rating (the default listing method), by historical date, alphabetically by filename, etc). To change the way the scenarios are listed, press the button to the right of each small "window" on the "Scenarios" screen.

**Note:** After pressing a button, please allow the program a few moments to reorganize the scenario listing.

To scroll through the scenarios use the arrows along the side of their titles. Note that the "double arrows" can be used to move up and down the list in a "Page Up" and "Page Down" fashion. As a scenario's title is highlighted the information displayed in the various windows is updated to show the information for that scenario.

The complexity rating is determined by the total number of units on both sides that could potentially appear during that scenario (including all reinforcements). Refer to the chart below.

| Complexity Rating Chart |                        |              |                        |
|-------------------------|------------------------|--------------|------------------------|
| Complexity #            | # of Units in Scenario | Complexity # | # of Units in Scenario |
| 1                       | 1-20                   | 6            | 201-280                |
| 2                       | 21-50                  | 7            | 281-380                |
| 3                       | 51-90                  | 8            | 381-500                |
| 4                       | 91-140                 | 9            | 501-750                |
| 5                       | 141-200                | 10           | > 750                  |

Once you have chosen a new scenario, click on **OK** to proceed to the battle.

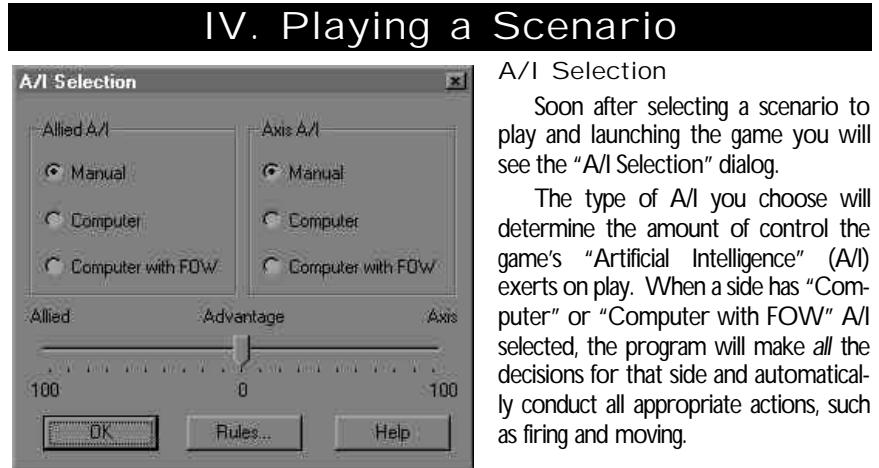


### Resuming a Saved Scenario

When you select "Resume a Saved Scenario" from the Main Menu, less information is displayed on the Scenarios screen than when you are starting a new game. This is because the program reads the information from the saved-game file, and not all of the info that is displayed for a new scenario is recorded in the saved-game file.

The titles of the scenarios you have previously saved are listed on the top left of the screen. If you have played the same scenario different times and have multiple saved games for the same title they will all be listed. In this case you will need to scroll through the scenario names, with the arrows alongside the titles, but observe the different file names listed in the File Name window on the right to find the game you wish to resume.

Once you have chosen a scenario to resume, click on **OK** to proceed to the battle.



## IV. Playing a Scenario

### A/I Selection

Soon after selecting a scenario to play and launching the game you will see the "A/I Selection" dialog.

The type of A/I you choose will determine the amount of control the game's "Artificial Intelligence" (A/I) exerts on play. When a side has "Computer" or "Computer with FOW" A/I selected, the program will make *all* the decisions for that side and automatically conduct all appropriate actions, such as firing and moving.

The A/I can be used in three modes: Manual, Computer, and Computer with FOW (Fog-of-War). Any one mode can be applied to each side.

**Manual** equals "no A/I". Select this for a side if you want to make *all* the decisions for that side, including conducting all moves and attacks for it. This is the default mode for both sides.

If you select **Computer** for a side, the *program* will handle *all* the decisions and actions for that side.

If you select **Computer with FOW** (Fog-of-War) for a side, the program will handle all the decisions and actions for that side, *and* Fog of War will be in effect. If Fog of War is on, you can only see enemy units that are in the Line of Sight (LOS) of one or more of your on-map units. This mode is most appropriate when you want to control one side and have the program control the other.

The **Advantage** bar at the bottom of the A/I Selection screen allows you to balance play between two players of unequal skill or to balance play against the A/I. To set an Advantage, hold down the left mouse button over the slider bar control and move it to the left or right (the keyboard's arrow keys can also be used to adjust the advantage). Advantage values can range from 0 to 100 for either side. Depending on the value you set, the side with the advantage will inflict higher than normal combat losses on the other side, and suffer lower than normal combat losses themselves. Advantage must be set before play begins in E-Mail, Modem Play and Two-Player Hot Seat games. Otherwise, the Advantage can be adjusted at any time during the game.

If you press the **Rules** button you will see a menu of Optional Rules that can be enabled or disabled to enhance game play for advanced players. For more information on the Optional Rules see pages 83-84.

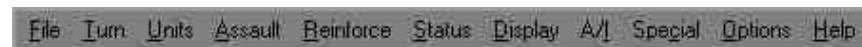
Once you have selected the A/I levels, set the Advantage, and chosen the Optional Rules you wish to use, press the **OK** button on the A/I Selection dialog and the program will automatically load the map and set up the units that begin play on the map (if any). Note that other units (for either or both sides) might be scheduled to arrive as reinforcements. To view a list of the reinforcement groups and their turn of arrival, select "Scheduled" from the "Reinforce" pop-down menu.



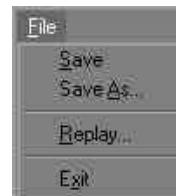
### The Game Interface & Pop-Down Menus

The Main Game screen displays the scenario's map, which has six different viewing modes; see page 18 (Map Magnification) and page 20 (Viewing the Map).

There is a "hidden" menu bar at the top of the screen. To display the Menu Bar, press the **M** hot key on your keyboard. If you exit the game with the menu bar displayed, it will still be displayed the next time you launch the game.



The "pop-down" menus of the Menu Bar and their commands are explained below. Many (but not all) menu items can be accessed by Tool Bar buttons and/or Hot Keys.



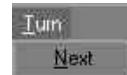
**File Menu:** save and/or exit a game, or to load a saved "replay" (.btr extension) file.

Select **Save** to save the game you are playing.

Select **Save As** to save a game under a file name other than the one currently being used for it (**Note:** due to the structure of the campaign files, this feature is disabled if playing a campaign game mission).

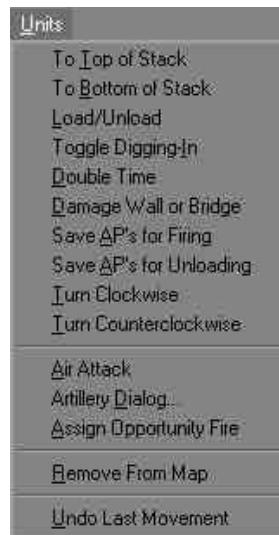
Select **Replay** to view a recorded battle. To halt the replay, press the **Esc** key.

Select **Exit** to quit the scenario. If the current game has changed since the last time it was saved, a dialog will appear giving the option to save it before exiting (Exception: if playing a campaign game mission, it is saved without any prompt).



**Turn Menu:** Use this menu when you want to proceed from one Player Turn to the next.

Select **Next** to advance the game to the next Player Turn.



**Units Menu:** Use this menu to change the position of friendly units, and to initiate artillery and Air Attacks, as well as a host of other things, as explained below.

Select **To Top Of Stack** to move a selected unit to the top of its stack.

Select **To Bottom of Stack** to move a selected unit to the bottom of its stack.

Select **Load/Unload** to load a non-vehicular unit onto a vehicular unit, or to unload a unit that is currently a passenger.

Select **Toggle Digging-In** to give orders for an eligible infantry-type unit to begin construction of an Improved Position.

Select **Double Time** before moving an infantry, cavalry or wagon unit and it will only pay three-fourths of the normal AP to enter a location.

Select **Damage Wall or Bridge** to have a selected engineer unit attempt to destroy a bridge or "high wall" hex-side. See page 49 for more information on bridge and high wall demolition.

Select **Save AP's for Firing** to ensure that the selected unit reserves enough Action Points to get off at least one shot after it has expended AP for other purposes.

Select **Save AP's for Unloading** to ensure that the selected unit reserves enough Action Points to unload any passenger it may be transporting after it has expended AP for other purposes.

Select **Turn Clockwise** to change the facing of the selected unit one hexside in a clockwise direction (note the facing of the unit's 3D icon in the Info Box).

Select **Turn Counterclockwise** to change the facing of the selected unit one hexside in a counter-clockwise direction (note the facing of the unit's 3D icon in the Info Box).

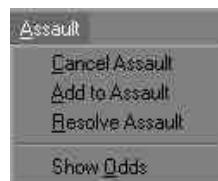
Select **Air Attack** to initiate an Air Attack on the currently Hot-Spotted hex. A targeting marker is placed to denote the impending air strike, but the attack is always delayed at least one Game Turn, sometimes several. Once plotted, an Air Attack cannot be recalled or cancelled.

Select **Artillery Dialog** to display the Artillery Dialog window which allows you to initiate attacks with Indirect Fire units. Note that all Indirect Fire attacks are not carried out until the following Game Turn.

Select **Assign Opportunity Fire** to display the Opportunity Fire (OpFire) dialog, which allows you to set (by firing- and target-unit types) the desired *maximum* ranges that your units will be allowed to conduct OpFire. See page 41 for more information on this dialog.

Select **Remove From Map** to voluntarily remove a unit from the map. Removal can occur only during your turn, and the unit must be in a map-edge hex (any map-edge hex—not necessarily an Exit Objective edge hex).

Select **Undo Last Movement** to cancel the entire movement of the most-recently-moved *still-selected* friendly unit, so you can instead move it in a different way (or not at all). This command is disabled during Modem play, Play By E-mail, and whenever Fog of War is in effect; e.g., during the campaign game.



**Assault Menu:** Use this menu to conduct Assaults.

Select **Cancel Assault** to cancel an Assault without resolving it.

Select **Add to Assault** to designate the currently-selected unit(s) as participating in the Assault.

Select **Resolve Assault** to resolve the Assault.

Select **Show Odds** to review the current Assault odds (Assault odds are not available if Fog of War is in effect).

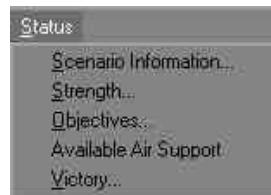


**Reinforce Menu:** Use this menu to check on the availability of reinforcements. See page 34 for more information on reinforcements.

Select **Scheduled** to display the reinforcements scheduled to arrive during the current scenario, as well as the per-turn arrival probability for each group. Double-clicking on the selection will display a Dialog Box listing individual units of that reinforcement group. If Fog of War is in effect, only the reinforcements for the side currently having its turn are displayed; otherwise, all reinforcements will appear.

Select **Arrived** during a friendly turn to display the reinforcement groups that are currently available to be placed on the map. See page 34 to enter a reinforcement group.

Select **Releases** for a display listing the release times of Fixed units. Clicking once on an entry in the Release Dialog causes that organization to become highlighted on the screen. Double clicking or selecting OK causes the release dialog to be dismissed and the organization to remain highlighted. Selecting Cancel causes the organization to become unhighlighted.



**Status Menu:** Use this menu to display current strength, objective, and victory condition information.

Select **Scenario Information** to display information on the scenario, including its title, historical background, the ground conditions, visibility and the scenario's designer. Some information in this dialog is not shown in Play by E-mail games, or if you are the *Caller* in a "modem" game.

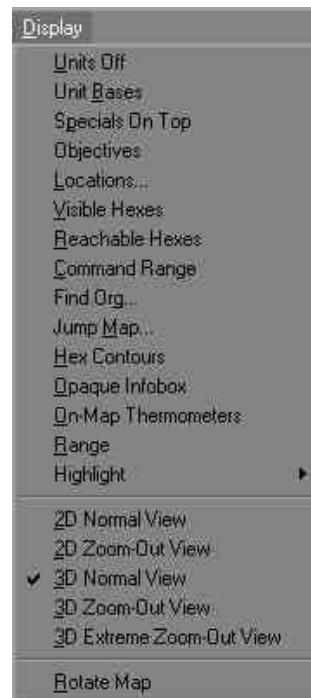


Select **Strength** to see the number and types of units currently available to each side. The units listed on the left side of the Strength Dialog (see illustration at right) are the total number of (full or partial-strength) platoons of that unit type *currently* available. The right side of this dialog lists the number of *Strength Points* (not the number of platoons) of that type of unit eliminated thus far. The *Strength* of the opposing side is not available if Fog of War is enabled (though the enemy's losses are shown).

Select **Objectives** to see the number, value and hex location of each Objective. Clicking on an entry line in the dialog box will put the Hot Spot in (and scroll the map to) that hex. For more information on Objectives see "How to Win" on page 80.

Select **Available Air Support** to view a list of the Air Attacks still available, if any (if Fog of War is on, you can only view the Air Attacks for your side).

Select **Victory** to see the current level of victory and related items (Exception: If playing a Dynamic Campaign Game mission, see page 90 for victory.)



**Display Menu:** Use this menu to control how information is displayed on the map.

Select **Units Off** to toggle (off or on) the on-map display of all units and markers. This option is provided to temporarily hide the unit and marker icons so that you can see the underlying map terrain better.

Select **Unit Bases** to toggle (off or on) distinctive bases for all 3D unit icons on any 3D map view. Note that each nationality has different-styled 3D bases displaying a derivation of that country's nationality symbol. See the nationality symbol chart on page 185.

Select **Specials on Top** to control the on-map display of fortifications (improved positions, mines, blocks) and wrecks on the 2D maps. When this command has a check mark next to it, all these markers appear above all other units in their hex.

Select **Objectives** to toggle (off or on) the display of Objectives on the map. When this is enabled, each Objective hex is denoted by an objective marker displaying the primary color of the side that currently controls it (Exception: Exit Objective hex).

Select **Locations...** to help you find a named location on the map. When you select one of those listed, the map will scroll to that hex.

Select **Visible Hexes** to toggle (off or on) a shade over all hexes which are *not* in the LOS of the current Hot Spotted hex.

Select **Reachable Hexes** to graphically illustrate all the hexes that the currently-selected unit can reach in the current turn. This takes into account the number of Action Points it has to spend (and considers whether or not the unit is Saving AP's for Firing or Unloading). All hexes it cannot reach are shaded. See page 34 for more information.

Select **Command Range** when a HQ unit is selected to see the Command Range for that HQ; see page 78 for more information on HQ.

Select **Find Org...** to see which units belong to which organizations. When you select an organization name in the Organization Dialog, each of that organization's component units becomes highlighted on the map. If Fog of War is in effect, only the organizations for the side currently having its turn will be highlighted. An organization name printed in light gray indicates that none of its units are currently on the map.

Select **Jump Map...** to display a miniature of the map. When you select any spot in the miniature version, the game map will automatically scroll to the corresponding spot.

Select **Hex Contours** to toggle (off or on) a brown "contour line" along all hexsides where an elevation change occurs.

Select **Opaque Infobox** to toggle (off or on) an opaque background color behind the Info Box.

Select **On-Map Thermometers** to toggle (off or on) small "thermometers" on a 3D map display that graphically illustrate each unit's current state of Morale, remaining Action Points or current Strength Points.

Select **Range** to toggle (off or on) a display feature that illustrates the currently-selected unit's hard (shown in red) or soft (shown in blue) attack limits. Note: If the hard and soft attack limits of the unit are same only a red line is shown.

Select **Highlight** to get a sub-menu of the following options:

**Spotted Units** toggles (off or on) a highlight around all units that have a LOS to (and thus are in the LOS of) at least one known enemy unit.

**Fired/Fought Units** toggles (off or on) a highlight around all units that have either fired at an enemy unit or fought in an Assault during the current Player Turn.

**Moved Units** toggles (off or on) a highlight around all units that have expended AP to enter a new hex during the current Player Turn (exception: unless Assaulting).

**Disrupted Units** toggles (off or on) a highlight around all units that are Disrupted.

**Units/HQs Out of Supply** toggles (off or on) a highlight around all units low on ammunition due to failing their supply check. Note that each HQ that moved during the previous Game Turn is automatically considered "Out of Supply" during the next Game Turn.

**Indirect Fire Units** toggles (off or on) a highlight around all units capable of firing indirectly.

**Anti-Aircraft Units** toggles (off or on) a highlight around all units capable of conducting fire vs. aircraft, i.e., Anti-Aircraft Fire.

**Organization** toggles (off or on) a highlight around all units that are part of the same organization as the selected unit, or are subordinate to the selected Leader or HQ.

**Mine-Clearing Units** toggles (off or on) a highlight around any unit capable of clearing mined hexes. Note that Mine-Clearing Units are also referred to as engineers in this manual.

**Leaders** toggles (off or on) a highlight around all leaders.

**Headquarters** toggles (off or on) a highlight around all HQ units (Command Posts are also highlighted if the Optional Rule for Command Control is "on").

**Fixed Units** toggles (off or on) a highlight around all Fixed units.

**Note:** The menu options beginning with Spotted Units and ending with Fixed Units are mutually exclusive; i.e., selecting any one of them will toggle-off any of the others that had been previously selected.

Select **2D Normal View** to change the map to its 2D version.

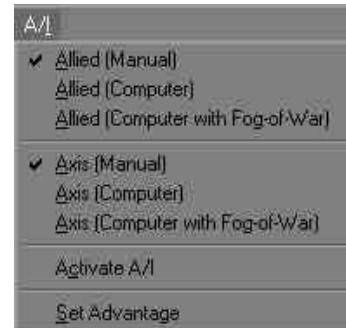
Select **2D Zoom-Out View** to change the map to a smaller, low resolution 2D version that enables more of it to be seen.

Select **3D Normal View** to change the map to its full-size 3D Battleview™ mode.

Select **3D Zoom-Out View** to change the map to Battleview™ mode but with the hexes at half their normal size.

Select **3D Extreme Zoom-Out View** to change the map to Battleview™ mode but with the hexes at one-fourth their normal size.

Select **Rotate Map** to rotate the map, and all units and markers on it, 180°.



**A/I Menu:** Use this menu to control the "Artificial Intelligence" (A/I) capabilities of the currently in-progress non-CG scenario.

Select **[Manual]** (i.e., no A/I) for a side if you want to make all the decisions for that side, including conducting all moves and attacks for it. This is the default mode for both sides.

Select **[Computer]** for a side if you want the program to handle all the decisions and actions for that side. This will show you the position of all enemy units, even those out of "line of sight".

Select **[Computer with Fog-of-War]** for a side if you want the program to handle all the decisions and actions, and have Fog of War in effect, for that side. This is the recommended, and most popular, method of play.

Select **Activate A/I** to restart the A/I after you have canceled it.

Select **Set Advantage** to balance play between two players of unequal skill or to balance A/I play. Advantage values can range from 0 to 100 for either side. Depending on the value, the side with the advantage will inflict higher than normal combat losses on the other side, and suffer lower than normal combat losses themselves. Advantage must be set before play begins in E-Mail or Modem Play games. Otherwise, the Advantage can be adjusted at any time during the game.



**Special Menu:** This menu provides special options necessary to play a Multi-Player scenario and to record a game in progress.

Select **Modem Host** before starting a modem game if you wish to be in charge of opening and saving the scenario, and to configure your modem for play. The Host player can also use this command to close the playing session. The extension .btx is used to denote a Modem saved-game file.

Select **Record Battle** to toggle (on or off) the option that allows you to save a record of the non "Special-mode" (including non-CG) game you are currently playing. **Note:** You must turn "off" (unchecked) a current recording in order to be able to view it (by selecting "Replay" from the File pop-down menu). The extension .btr is used to denote a recorded battle file.

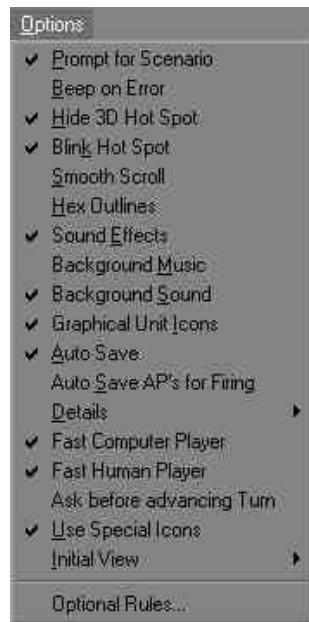
Select **Restart Replay** to restart the replay of a previously halted recorded battle file.

Select **Communication Dialog** in a modem game to display the "chat window" if you had closed it previously. See also page 110 for details on the Multi-Player Comm Dialog.

Select **Set Network Play Timer** during a live multi-player game. Using this, the Host (only) can input a time, in minutes, that will be used by the program to automatically end each Player Turn. This time can be reset at any time, but only by the Host. If the time is reset, a message is displayed to all other players of the new time that has been set.

Select **Multi-Player Dialog** during a multi-player game in order for the team captain to assign his side's organizations to players on his side. This can also be used by the other players to view what units have been allotted to whom. For more information on this see page 110.

Select **Scroll to View Enemy Action** during a multi-player game for the computer to scroll the map to display visible enemy actions. This is "off" by default to prevent unwanted scrolling. This option has no effect except during multi-player games.



**Options Menu:** Use this menu to set the default for certain options associated with the main program. A check mark next to a command in this menu means that it is "on." The settings of this menu are always "remembered" by the program.

Select **Prompt For Scenario** if you want to be prompted for a new scenario whenever you enter the game directly via a desktop shortcut for the WF.EXE executable (instead of the "normal" method of launching a new scenario from the "Scenarios" screen).

Select **Beep on Error** to toggle (off or on) the option that causes a beep when you make an error.

Select **Hide 3D Hot Spot** to toggle (off or on) the option that causes the hexagonal Hot Spot marker to be hidden on the "3D" maps.

Select **Blink Hot Spot** to toggle (off or on) the option that causes the Hot Spot to blink. Note that the Hot Spot only blinks on the 2D maps.

Select **Smooth Scroll** to toggle (off or on) the option that causes the map to scroll incrementally to a new Hot Spot. When this command has no check mark next to it, the map redraws directly at the new Hot Spot hex without scrolling through the intervening hexes.

Select **Hex Outlines** to hide or display the map's hex outlines. When the hex outlines are visible, this command has a check mark next to it.

Select **Sound Effects** to toggle (off or on) the playing of firing/moving sound effects.

Select **Background Music** to toggle (off or on) background music.

Select **Background Sound** to toggle (off or on) the playing of "ambient" background battle sounds.

Select **Graphical Unit Icons** to toggle the display of unit icons between graphical and military-type schematic versions.

Select **Auto Save** to have the program save the game automatically at the end of each Player Turn [Exception: it will not save a phase that was conducted under computer-controlled AI (with or without Fog of War)].

Select **Auto Save AP's for Firing** to have *all* of the combat units of the phasing side automatically save enough AP to always be able to conduct at least one fire-attack after AP are expended for other purposes.

Select **Details** to display a sub-menu that allows you to specify the level of details you wish to see in the combat reports. See also Damage Report Details on page 51.

Select **Fast Computer Player** to have a computer-controlled side perform its movement at a significantly increased speed when in any 3D Battleview™ mode.

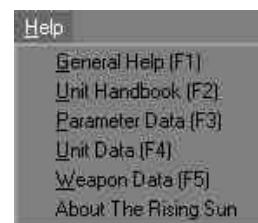
Select **Fast Human Player** to have the 3D icons animate at an increased speed.

Select **Ask Before Advancing Turn** to have the program confirm that you really want to end your Player Turn after you have indicated that you have finished. With this on, you cannot end your turn by mistakenly clicking on the "Next Turn" Tool Bar button.

Select **Use Special Icons** in order for the program to use special 3D icons such as winter or desert camouflage. Some nations may also have different icons for the early and late war periods. In order for the special icons to appear (if this option is not already in effect), you must select this option and *restart* the game.

Select **Initial View** to define the initial view of the map when the main program is started. The views may be set to any of the standard views, or to default to the last one used while playing the game.

Select **Optional Rules** to display a menu of game options that are in effect for the current scenario. These rules must be set at the start of a scenario and cannot be changed during game play. See pages 83-84 for more information on the Optional Rules.



**Help Menu:** Use this menu to get information about how to use the *Rising Sun* program.

Select **General Help (F1)** to open the General Help file which provides instant, on-line access for playing the game.

Select **Unit Handbook (F2)** to display additional information about the currently-selected unit. Such information cannot be accessed about enemy units if playing with Fog of War.

Select **Parameter Data (F3)** to find miscellaneous information on the data used internally in the game (such as the various combat tables, the height of obstacles, and defensive modifiers of the various terrain and fortification types, etc.).

Select **Unit Data (F4)** to display miscellaneous data about the units in the game; i.e., strength points, platoon VP value, Assault Value, Defense Strength, Fire Cost, loading & unloading costs, availability dates.

Select **Weapon Data (F5)** to display a list of the units' effective ranges vs. hard and soft targets, and their attack strengths at those ranges. The upper line shows the range and attack strength vs. hard targets, and the lower line shows the range and attack strength vs. soft targets.

Select **About Rising Sun** to display a dialog containing version number and copyright information about the game.

## Game Scale & Stacking

The game scale is 6 minutes per Game Turn and 250 meters per hex (exceptions: Game Turns during a Night scenario represent a longer period of time due to units normally moving slower at night, and the scale of some of the smaller island maps has been "stretched" slightly for playability's sake). Each strength point (SP) of an infantry platoon represents a half squad (thus, 6 SP represents a platoon of three squads). Each SP of a Machine Gun platoon represents one MG "team" (and, thus, one MG); each SP of a gun (i.e., gun, mortar, or howitzer) battery represents one gun and its attendant crew; each SP of a vehicular platoon (regardless of type) represents one vehicle and its crew. Each gun battery is considered to have its own "inherent" crew.

Each hex may contain a maximum of 24 SP or 6 units, exclusive of leaders (Exception: full-hex bridges however have a stacking limit of 12 SP).



### Map Magnification

To change the view of the battlefield:

 Use the magnifying glass icon on the Tool Bar (near the bottom of the screen) to zoom in; if you hold down the **Alt** key while clicking on the magnifying glass you will zoom out. You can also use the keyboard numbers **1**, **2**, **3**, **4** and **5** to quickly change the map view (**1** is 3D Normal View, **2** is 3D Zoom-Out View, **3** is 3D Extreme Zoom-Out View, **4** is 2D Normal View, and **5** is 2D Zoom-Out View). You can also change the map view by selecting that map view's name from the Display pop-down menu.

If you wish the game to always start with a particular view, you can set this option in the Menu Bar, under Options. Allow a moment or two for the program to "load" the necessary terrain files after clicking a new "view mode".

### The Tool Bar



The Tool Bar, along the bottom of the screen, provides you with an easy to use way to play the game and maneuver your units for combat and movement. **Note:** For all Tool Bar buttons to appear your screen resolution must be 800x600 or higher.

Using the Tool Bar, you can:



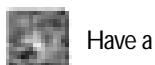
Toggle between "Move" and "Fire" mode (also possible with **Ctrl** key)



Display the Artillery Dialog



Load/Unload units into/from an eligible transport unit



Have a unit "Dig In" to attempt to create an Improved Position in its hex



Have an eligible unit use Double Time movement



Save Action Points for Firing



Save Action Points for Unloading units



Resolve Assault



Call for an Air Attack in the currently Hot-Spotted hex



Activate or deactivate the A/I



Zoom in on the Map for a closer view of the action (or zoom out by holding the **Alt** key)



Toggle on/off the bases for the units (3D Battleview™ only)



Display the Jump Map



Highlights all hexes visible from Hot-Spotted hex



Highlight the Organization for a unit. To highlight the *next higher* organization, hold down the **Ctrl** key while pressing this button



Cycle to the next unit



Display the Command Range of the currently selected HQ or CP



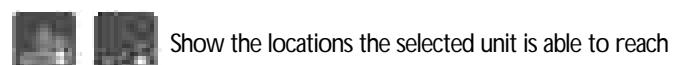
Display the hard & soft attack ranges of the currently selected unit



Open the Arrived (Reinforcements) dialog



Remove the selected unit from the map (must be in an edge hex)



Show the locations the selected unit is able to reach



Advance to the next Player Turn

### The Status Bar

Located beneath the Tool Bar, the Status Bar displays the nationality symbol(s) of the current player, a "thermometer" graphic for the current turn compared to the total number of Game Turns in the scenario, an indicator displaying how many "smoke" artillery missions remain for the phasing side, whether the current Player Turn is Allied or Axis, and the hex coordinates of the hex that is currently selected. If a Night scenario is being played, an indicator appears which displays the number of Starshells remaining for the phasing side.



In addition to the Tool Bar, there are numerous Hot Keys that will ease your game play. For a complete list of the various Hot Keys and their functions, refer to the back cover of this manual, and see the *readme.txt* in the game itself.



### Viewing the Map

You can scroll around the map by using the mouse to move the cursor to the edge of the screen. You can also use the arrow Hot Keys to scroll the map. The map can be viewed in six viewing modes.



**3D Normal View.** The ultimate map view is the **3D Normal View** mode, which is displayed by pressing the **1** key on your keyboard. This presents the Battleview™—a high-resolution map in 3D-type isometric perspective, presenting much more detail on the screen. In this view, units are shown as "miniatures" with individual positions within their hex.



**3D Zoom-Out View.** The **3D Zoom-Out View** displays the Battleview™ map at half of its normal size, thus allowing twice as much of it to be seen at a time. This view can be seen by pressing the **2** key on your keyboard.



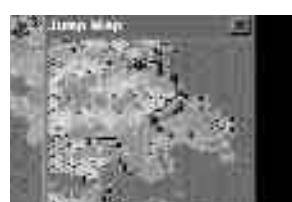
**3D Extreme Zoom-Out View.** The **3D Extreme Zoom-Out View** displays the Battleview™ map at a fourth of its original size, thus allowing you to view more of the 3D map at once. This view can be seen by pressing the **3** key on your keyboard.



**2D Normal View.** The next scale is called the **2D Normal View**, and is displayed by pressing the **4** key on your keyboard. This presents the terrain and units in more detail than the 2D Zoom-Out map while showing a larger area than the 3D maps. You can choose to display units on the 2D Normal View map with either graphical icons or military symbols



**2D Zoom-Out View.** The smallest *playable* size is the **2D Zoom-Out View** map, which is displayed by pressing the **5** key on your keyboard. Units on this map cannot be distinguished from each other as easily as on the other maps, but their positions relative to the opponent's units are readily apparent over a wider area.



**Jump Map.** The sixth map view is the **Jump Map**. The jump map will give an overall view of the *entire* map. It is an easy way to examine your whole battle situation. On the Jump Map Axis units are shown by blue dots and Allied units by red dots. You can click on any portion of the jump map and the main map will automatically scroll to that part of the map. This can be seen by clicking on the jump map icon on the Tool Bar.

### Map Labels

Hold down the **Shift** key to see the labels for the map's features, a compass rosette, and a label displaying the distance and direction to the closest major population center. If you hold **Shift** and then press **Alt**, the labels stay on until you press **Shift** again.

### Selecting a Unit

To give orders to a unit (that is, to have it fire, move or perform any other action), or to access additional information on it, that unit must first be **selected**.

To select a unit displayed on a 3D map view, left-click on its 3D unit icon. A selected 3D icon has a green outline, and the nameplate of its Info Box is brighter than an unselected unit's nameplate. On both the 2D and 3D maps, a unit can also be selected by left-clicking once on its unit "Info Box" (i.e., the see-through data box that appears in the upper right hand corner of the screen when you click on a unit on the map). Right-clicking on the Info Box will cycle through the units in the hex, allowing you to view/select them individually.

To select *all* the units in a hex, simply double-left-click on that hex.

To display the Info Boxes of all units in the hex, press the **U** key (see Unit List, page 25).

You can also select a unit if its Info Box is displayed by left-clicking once on that unit's Info Box (a selected unit's Info Box will display a brighter nameplate along the top of the box). **Note:** Left-clicking once on an *already-selected* Info Box will *deselect* the unit.

### 3D "Roam Mode"

Whenever the display features a "3D" map, "Roam Mode" is enabled. In Roam Mode 3D unit icons on the map are automatically highlighted when your cursor passes over them. A yellow highlight around a 3D icon indicates a friendly unit, a red highlight indicates an enemy unit. The selected unit is always shown with a green highlight (whether friendly or enemy). When you "roam" the cursor over a 3D icon, its Info Box will be displayed. Such info remains displayed as long as your cursor is positioned over that 3D icon. As soon as your cursor "roams" off the 3D icon, the Info Box reverts back to displaying the selected unit (or, if no unit is currently selected, no Info Box is displayed).



### The Info Box

The Info Box is displayed in the upper right-hand corner when a unit is selected. Note that you can reposition the Info Box by the "drag and drop" method if its current location is inconvenient. Normally, the Info Box will display information about the selected unit. However, if playing on a 3D map, the Info Box will temporarily display information on any unit (enemy or friendly) that your on-map cursor "roams" over. The amount of information displayed will vary, depending on the current Fog of War option chosen—as well as the displayed unit's actual capabilities and recent actions; i.e., no Fog of War, normal Fog of War, or Extreme Fog of War.

If more than one unit is in the same hex (and the *Unit List* is not on; see "Unit List", page 25), you can cycle through and view the Info Box of each unit in that hex by *right-clicking* on the Info Box. Note that a left-click on the displayed Info Box will select that unit (note how the nameplate of the unit highlights), or unselect the unit if already selected (the nameplate will become unhighlighted). If a unit is carrying a passenger (indicated by a large, full-color helmet icon in the lower-right corner of the Info Box) a right click will display the unit being carried by that transport unit.

The center section of the Info Box displays the unit's 3D icon. Other important data is



arranged in a circular fashion around the icon. Starting at "12 o'clock" and proceeding clockwise, the data lists:

**Strength (Command):** The unit's current Strength Point (SP) value. Each SP of an infantry-type platoon represents one "half squad". Each SP of an MG-, mortar- or gun-type unit represents one "team" (if MG) or gun (for "tube" weapons such as mortars or artillery). Each SP of a vehicular platoon represents one vehicle. An SP value shown in yellow indicates that the selected unit is not at full strength. If the unit is a leader, this is his *"Command Rating"*, which is added to the Attack Strength of a unit under his command, with which he is stacked, if that leader possesses at least as many Action Points (AP) as the Fire Cost of the attacking unit.

**Action:** The number of Action Points (AP) the unit has remaining (unused). All units start each "friendly" Player Turn with 100 AP; each action executed (and each terrain location entered) will cost a certain amount of AP. Note that, due to differing movement rates, different unit types will expend different amounts of AP for entering similar terrain. To see how many AP it costs to enter each terrain type, select that unit and press the **F2** key to access the Unit Handbook. The AP expended to enter a hex are doubled if the unit is Disrupted (to a maximum of 65 AP; see Minimum Movement on page 31).

**Assault:** That unit's basic attack value when it Assaults.

**Defense:** That unit's basic defensive value when it is being fired on or Assaulted. A unit's Defense Strength shown in red indicates that it is a "hard" (i.e., armored) target.

**Fire Cost:** How many AP that unit must expend to shoot.

**Morale (Leadership):** The unit's current morale (the number it must roll equal to or less than on a 10-sided die when doing a morale check). In order for a unit to become undisrupted or to regain a lost morale level, it must also roll equal to or less than this number. A morale level displayed in yellow indicates the unit is not currently at full (nominal) morale; this can be as a result of combat, or the unit might have begun the scenario at a reduced morale level. If the unit is a leader, this number is instead his *"Leadership Rating"*, which modifies the morale of the unit(s) under his command that he is stacked with. If his morale is greater than that unit's, his morale is used for it. If his morale equals or is less than that unit's, its morale is raised by one. A unit's morale appears in red if it's being modified by a leader.

A unit's morale can be affected by the terrain it occupies. "Beneficial" terrain will raise a unit's morale so that it will be less likely to fail a morale check and thus less likely to retreat, whereas terrain that provides no cover (such as Clear and Water) have a detrimental morale modification. A list of these effects can be found by pressing the **F3** key to view the Parameter Data; see also the Terrain Types section beginning on page 59.



**Info Box Thermometer:** Along the bottom of the Info Box is a thermometer that displays one of three things (as a ratio of its current amount to its "full" amount):

- The unit's current Action Points (red thermometer bar); the white vertical line marks the lowest point the thermometer must stay "above" for the unit to have enough AP to fire.
- The unit's current Morale (blue thermometer bar).
- The unit's current Strength Points (green thermometer bar).



A single left-click on the Morale, Strength or Action Points box in an Info Box will change the Info Box thermometer to display that variable.

Icons may appear along the left-hand side of the Info Box. Those at the top reflect unit status (i.e., what the unit is currently doing or what effects it is subject to); those at the bottom show unit capabilities (i.e., what the unit is capable of doing).

Disrupted Status

Fatigued Status

Fixed Status

Unit is in LOS of (i.e., spotted by) an enemy combat unit

The only enemy unit with LOS to unit is a leader/unarmed-transport unit

Unit is currently Low on Ammo (or unavailable if HQ or artillery)

Unit is currently marked to "Save APs for Firing"

Unit is currently marked to "Save APs for Unloading"

Unit has spent APs to fire this turn

Unit has spent APs to move this turn

Vehicle eligible to travel across water (amphibious)

Unit is capable of conducting Anti-Aircraft attacks

Unit is capable of conducting Indirect Fire

Unit is capable of carrying infantry

Unit is capable of towing (or carrying) guns

Unit is capable of Double Time Movement (note that this also denotes an artillery type unit that is capable of movement without transport)

Unit is eligible to dig in (or is currently Digging In)

Mine-Clearing (i.e., engineer) Unit capable of reducing Minefields or destroying Blocks and High Walls

Vehicle is flamethrower-equipped (capable of assaulting Pillbox; see page 46)

Unit is capable of firing Smoke

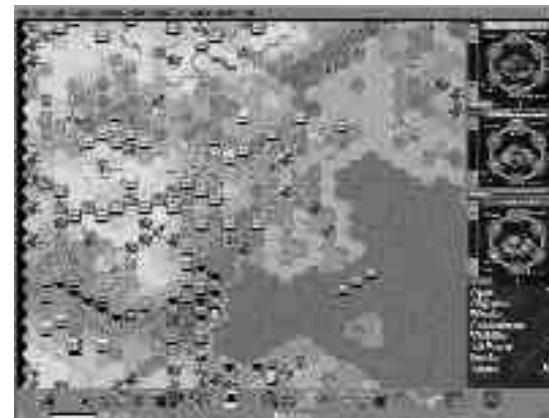
The heaviest type of bridge the unit is *not* allowed to cross

### On-Map Thermometers

When using any of the 3D map displays, you can toggle the "On-Map Thermometers" for each 3D icon on or off by pressing the **T** hot key. Depending on what you prefer, thermometers can be displayed that graphically depict the Action Points a unit has remaining, or its current number of Strength Points, or its current Morale. Note: The on-map thermometers are color-coded to the color outline of the Info Box coinciding to that value; i.e., red for Action Points; green for Strength Points; blue for Morale. A single left-click on the Morale, Strength or Action Point box in the Info Box will change the displayed on-map thermometers to the one measuring that variable. Turning the on-map thermometers on can also be a convenient way to locate units on a 3D map display.

### The Unit List

To display the Unit List along the right side of your screen, press the **U** hot key. You can select and unselect one or more units easily with the Unit List "on" by left-clicking once on the desired Info Box(es) in the Unit List. Additional information regarding play can be found in the Unit List. If a hex is selected, Info Boxes for all units in that hex are displayed in the Unit List, one above the other. You can use the cursor to "drag" the displayed Info Boxes up or down within the Unit List (this can be necessary if three or more Info Boxes are displayed in the Unit List). To close the Unit List, press the **U** key again.



To the left is the *Rising Sun* interface with the Unit List being displayed.

Right-click on a unit displaying a full-color helmet icon (see page 33) to see the Info Box of the passenger being transported.

Below the lowest Info Box displayed in the Unit List the following additional game information is presented:

**Terrain:** Lists the predominant type of terrain in the hex and the base elevation in meters.

**Objective:** If the selected hex is an objective hex, its objective value is listed. See pages 80-81 for more information on Objectives.

**Wrecks:** The current number of wreck SP in the selected hex. See page 39 for more information on wrecks.

**Concealment:** The concealment value of the terrain in the selected hex. The higher the value the better its concealment.

**Visibility:** The maximum number of hexes a unit can "see" in the scenario. See page 39 for more information on Line of Sight and visibility.

**Air Power:** The total number of Air Attacks remaining per side (Allied #/Axis #).\*

**Smoke:** The number of Smoke missions available to eligible artillery (Allied #/Axis #).\*

**Starshells:** The number of starshells remaining per side (Allied #/Axis #).\* Starshells are only listed in a scenario defined as taking place at night. See pages 54-56 for more

information on Night scenarios and Starshells.

**Ammo:** The supply (ammo) level per side (Allied #/Axis #).\*

\* If Fog of War is in effect, the numbers for the opposing side are shown as a "?".



### The Unit Handbook

Additional information about a unit can be accessed by selecting that unit and pressing the **F2** key. This will display useful information about the unit, such as its AP terrain costs, its per-SP victory-point value, its “organizational tree” in the current scenario, some historical text on the unit type, and a sample illustration. Note: The terrain costs listed for a unit in the Unit Handbook are the terrain costs associated for the ground conditions (normal, soft, mud or snow) of the scenario currently open. Clicking the “R” (“Range Display”) button will bring up a graph illustrating the range of its weaponry (if applicable); see Range Display, below. Also shown in the Unit Handbook is the “organizational tree” of the selected unit (providing a listing that unit’s company, battalion, regiment, etc.) To close the range display, left-click on the graph, or press the **Esc** or **Enter** key. Use the same keys to close the Unit Handbook, or left-click on the **X** (“Close”) button located in the lower right-hand corner of the Unit Handbook display.



**Range Display:** If you click on the “Range Display” (“R”) button in the lower right portion of a selected unit’s Unit Handbook display, a “Range Dialog” graph is displayed. This Range Dialog illustrates the “Hard target” Attack Strengths (shown by the red line) and the “Soft target” Attack Strengths (shown by the blue line) of the unit currently being investigated in the Unit Handbook.

The number in the upper left corner of this dialog (along the “Y” axis) is the unit’s *maximum attack factor* for whichever Attack Strength (hard or soft) has the greater value; the number in the lower right corner (along the “X” axis) is the unit’s *maximum range* for whichever Attack Strength has the greater range. The Range Dialog graph in the Unit Handbook can be closed by left-clicking on it, or by pressing the **Esc** or **Enter** key.

### Organizations

Each unit in *Rising Sun* is part of an organization. The individual units are platoons.

The platoons are part of companies, the companies are part of battalions, battalions are part of regiments, and regiments are parts of divisions. You can use the Highlight Organization Tool Bar button to highlight the selected unit’s organization. Additionally, you can also highlight the “next higher” organization in that organizational “tree” by holding down the **Ctrl** key while clicking on this Tool Bar button. Knowing the other units (especially Leader and HQs) belonging to a unit’s organization is important for being effective in combat. See also Organizational Movement (p. 34), Leaders (p. 66), and HQ and Supply (p. 67).

The **Find Org...** item from the **Display** pop-down menu is a convenient way to find what organization is present on the map, and its location. Click on organizations listed in this dialog and the units of that organization are highlighted on the map. You may find it convenient to be in the “2D Zoom-Out View” mode when doing this. See also the information given on page 13 about this menu item.



### Scenario Information

While playing a scenario you can press the **I** hot key to display the Scenario Information. This display lists the scenario’s title and author, the ground and weather conditions in effect, the visibility (in hexes), and the historical copy. If Night rules are in effect “Night” is listed in the “Visibility” window. See pages 54-56 for more information on Night rules. Note: Use your keyboard’s “Page Up” and “Page Down” keys to view more of the historical copy. The ground conditions affect the number of Action Points a unit must expend to enter a given terrain type; the weather affects the visibility conditions.

**Important Note:** The historical description for each *Rising Sun* scenario includes a recommendation for which side you should play if playing against the computer AI. Playing as the other side will result in an unbalanced game.

## Terrain Information

Each game map is composed of a variety of terrain types that affect combat, movement and Line of Sight (LOS) in differing ways. The terrain type in the "hot spotted" hex is displayed in the Unit List (press the **U** hot key to turn the Unit List off and on). To get more detailed information on each terrain type select "Parameter Data (F3)" from the Help pop-down menu (or press the **F3** hot key). In this display information can be found describing the combat modifier of each terrain type, the effect on morale that certain terrain types have, and the height (in meters) of each terrain type.

## The "Hot Spot"

To "hot spot" a hex simply left-click one time in that hex. **Note:** To display a red outline around the hot-spotted hex when playing on a 3D map, uncheck "Hide 3D Hot Spot" in the Options pop-down menu; if playing on a 2D map view, the hot-spotted hex is always highlighted by a red square.

## Game Turns & Player Turns

Each Game Turn consists of two Player Turns, one Allied and one Axis (not necessarily in that order). The player (or side) capable of movement during a Player Turn is considered the "phasing" player (or side). See also Game Scale and Stacking on page 17.

## The Command Report

At the beginning of each Player Turn the program generates a "Command Report" if any of the following situations apply:

**Arrival of Reinforcements** - An announcement is made if any reinforcements have arrived (see Reinforcements, page 34).



**Release of Fixed Units** - An announcement of the release of any organization (or even a single unit) that had previously been "fixed" (see Fixed Units, page 37).

**Improved Position Construction** - An announcement is made of the construction (and hex-location) of a just-completed Improved Position. Engineer infantry have an improved chance of creating Improved Positions (see Digging In, page 58).

**Clearing of Minefield or Blocked Hex** - An announcement is made if engineer units have successfully cleared any mined or blocked hexes (see Clearing Minefields and Blocks, page 49).

**Number of Air Attacks** - Lists the total number of Air Attacks available for that side during the scenario (see Air Attacks, page 44).

**Number of HQs Unable to Provide Supply** - Lists the number of HQs unable to provide supply during the current turn (see HQ and Supply, page 78).

**Number of Units Low on Ammo** - A list of the number of units currently suffering from low supply (see HQ and Supply, page 78).

**Undisrupted or Recovered Morale** - Lists the number of units that became undisrupted and/or recovered morale (compared to the total that were disrupted or had lost one or more morale levels) and the units' location (see Disruption Loss, page 53).

**Isolated** - Lists the hexes where isolated units are located.



## Combat and Movement

Combat and Movement all take place in one turn. Each unit is allocated 100 Action Points at the start of its Player Turn, displayed in its Info Box. Every hex entered and every shot fired consumes a certain amount of AP from the selected unit's current total of APs. Once a unit has expended all of its AP (or, more commonly, has so few AP remaining that it is unable to perform any action) it will have to wait until its next Player Turn begins to have its AP returned to 100 (and thus be able to perform more actions). Note that you do not have to finish the movement (or AP expenditure) of one unit before beginning the movement of another unit; you can always "come back" to any unit at a later time during your turn to move or fire it, as long as it has enough AP remaining to perform the desired action.

During each "friendly" Player Turn, a unit can usually both move and fire. Some units can fire as many as three times per turn! Each armed (combat) unit has a "Fire Cost" (the amount of AP it costs that unit to fire). How you choose to have your units expend their AP, and in what "combination", will largely determine how well you do in a scenario. There are many decisions to make each time you select one of your units during your turn. For instance, should you expend all of a unit's AP in moving? Should it fire once and then move? Should it move, and then fire? Should it fire once, then be marked to "Save APs for Firing" (so that it might conduct opportunity fire during your opponent's turn)? The options are plentiful—and the situation is fluid. Using your units' AP to the fullest is an important part of victory.

## Move/Fire Mode

  There are two "modes" in the game, "Move" and "Fire". By default, a turn begins in Move Mode. To toggle between the two modes press the "Move/Fire Mode" Tool Bar button (the second button from the left on the Tool Bar). When in Move Mode this button displays three green arrows and part of a tank silhouette; when depressed the button is in Fire Mode and displays a bright red "crosshairs" over a vehicle icon. Additionally, pressing and holding down the **Ctrl** key toggles the mode from "Fire" to "Move" or vice-versa. Note that your on-map cursor changes at the same time. You must be in Move Mode to move or Assault with a unit; you must be in Fire Mode to give a unit Direct or Indirect Fire orders. When in "Fire Mode" your on-map cursor is a circled "plus sign" (similar to the crosshairs of a gun sight).



### Moving a Unit

 Each Player Turn begins with the game in the Move Mode by default. First, be sure you are in "Move Mode". The second button from the left in the Tool Bar along the bottom of the screen is the "mode" button. In "Move Mode" the button is "undepressed" and shows three green arrows and a partial silhouette of a tank. (If it's "depressed" and displays a large red "crosshairs", you're in "Fire Mode".) Next, select the unit you want to move, then **right-click** in any hex to move the unit toward that hex. (**Note:** you can move units only of the side you control—not enemy units.) Alternatively, you can select the unit, then "drag and drop" it in the direction you wish it to move. When in "Move Mode" your on-map cursor is a thin "plus sign" (+).

 **Save AP's for Firing:** When moving a unit (especially if expecting to move into "contact" with the enemy) you might want to reserve enough APs so that the unit can fire at least once (either at the end of its move or as Opportunity Fire during the next enemy turn). To do this, press the "Save AP's for Firing" Tool Bar button before expending many AP for other activities. When a unit has been selected to Save AP's for Firing, a small full-color "bullet" icon will appear near the top of the icon bar along the left side of the Info Box. To cancel this, simply select the unit and toggle this off by pressing the same Tool Bar button. **Note:** you can have this feature automatically in effect for all combat units of your side by selecting "Auto Save AP's for Firing" from the Options pop-down menu; however, this will not take effect until a Player Turn begins with this option selected.

 **Save AP's for Unloading:** When moving a loaded transport unit (especially if getting near the enemy) you might want to reserve enough APs so that the transport's passenger can unload at the end of the move. To do this, press the "Save AP's for Unloading" Tool Bar button before expending many AP for other activities. When a unit has been selected to Save AP's for Unloading, a small full-color "wheel" icon will appear near the top of the icon bar along the left side of the Info Box. To cancel this, simply select the carrying unit and toggle this off by pressing the same Tool Bar button.

### Roads

The maps in *TalonSoft's Rising Sun* feature several different types of "roads", each of which has a different movement cost (paid in AP) to enter a hex along that road. The road types are:

**Paved:** These are well-surfaced (improved) macadam roads, and provide a good surface in all weather conditions.

**Unpaved:** Packed-dirt surface. If the terrain is muddy these are best avoided.

**Paths:** These represent narrow cart and foot paths, too narrow for most wheeled vehicles to benefit from.

**Railroad:** These represent railroad tracks, sometimes found elevated above the surrounding terrain. A very bumpy ride for vehicles.

For more information on roads, see pages 68-69 in the Terrain Types section.

**Road Movement:** Two or more (non-leader) units of  $\geq 12$  SP stacked in a hex negate any road in that hex. (For purposes of this, "road" includes each of the four types of "roads" listed above.) In other words, a unit travelling along a road can enter a hex using the road movement rate as long as its SP total, when added to the SP total of the units already in the hex, does not exceed 12. Passengers do not count, but wrecks do. Hence, if you try to move three units whose combined SP is  $> 12$  simultaneously (as a "stack") along a road, they each pay the non-road cost to enter that hex. Likewise, if two units with a combined SP of 12 already occupy a road hex, the non-road cost will be charged if you attempt to move any other unit into it.



**Bridges:** There are three types of hexside bridges in the game: Light, Medium and Heavy. In addition to these three hexside bridges, a water hex can be spanned by a "full hex" bridge, which is always considered "heavy" for movement purposes. The bridge icon (with a small red "x" on it) that appears in the icon bar along the left side of the Info Box is the "heaviest" type of bridge that unit is *not* allowed to use, whereas the bridge type listed for that unit on its Unit Handbook page is the lightest type of bridge the unit is allowed to use. For information on the various bridge types, see pages 71-73 of the Terrain Types section; for information on destroying bridges, see page 49.

### Minimum Movement

Regardless of the AP cost of a hex, a unit can always move one hex during its Player Turn. The most AP cost of any one hex entered is 65 AP, regardless of the combination of hexside or in-hex terrain. Thus, as long as a unit has 65 AP remaining, it can enter an adjacent hex (Exception: if entering a hex (and/or crossing a hexside) that unit cannot

enter/cross; e.g., any unit crossing a cliff hexside, or a vehicle attempting to enter a non-frozen swamp or marsh).

**NOTE:** The program might tell you that a unit does not have the required AP to enter a hex (even though that unit has 100 AP remaining) if that hex entry cost is 65 AP and the unit has been marked to Save AP's for Firing (as denoted by a "full color" bullet icon appearing in the upper part of the icon bar along the left side of its Info Box). This is most common in units which must pay > 35 AP to fire when such a unit is attempting to enter a hex which costs 65 AP. To move such a unit, select the unit and toggle off the "Save AP's for Firing" feature. The unit will then be allowed to expend the necessary AP to move (as it is now no longer saving enough AP to fire). See also "Auto Save AP's for Firing".

### Disrupted Unit Movement

A disrupted unit pays *double* the normal AP cost to enter a hex, to a maximum of 65 AP. A non-passenger disrupted unit cannot enter a hex if, in doing so, it would be *lessening* the distance to the **closest** enemy unit currently known to any unit of the friendly side.

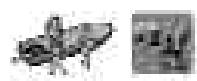
If a disrupted unit *begins* its turn adjacent to an enemy unit, it may continue to move adjacent to that enemy unit (as it is not moving closer to that "closest" enemy unit).



### Transporting Units

There are several different types of transport units available in *Rising Sun*, including wagons, horses, trucks, artillery tractors, halftracks, motorcycles, bicycles, landing craft, boats, rafts and even some types of tanks and assault guns.

Some types of transport units can *only* move if that transport is currently loaded (the passenger is necessary to move or guide that mode of conveyance). These transport types include horses, motorcycles, bicycles, boats and rafts.



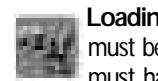
**Portaging:** Boats and rafts can be "portaged" overland by infantry. To do this, select the infantry unit and the boat/raft unit, and press the "load/unload" button. (Note: The SP of the boat/raft must be at least as great as the unit portaging the boat/raft.) While portaging the boat/raft the defensive modifier of the carrying unit applies. However, once in the water, the (much lower) defensive modifier of the boat/raft applies.

 Each potential transport unit displays a small icon along the lower left side of its Info Box that graphically displays a type of unit it is capable of transporting. See page 24 for more information on these icons.



Any unit *currently carrying* a passenger of any type has a large, full-color helmet icon in the lower right portion of its Info Box. If eligible to carry a passenger but not currently carrying one, the helmet icon on "standard" (dedicated) transport units (trucks, halftracks, prime-movers, horses, motorcycles, bicycles, boats, and rafts) is shown as a yellow outline. This yellow helmet outline is not shown on "non-standard" transport, such as tanks and assault guns.

To see what is being carried by any unit displaying the full-color helmet icon, right-click on its Info Box. Right-clicking on the Info Box *again* will redisplay the transport unit or, if there are other units in the hex, will display the next unit in the hex (exception: if the Unit List is on; see page 25). Note that horses, motorcycles, bicycles, boats and rafts cannot move (or be used for spotting purposes) unless a passenger is currently loaded on that unit, whereas trucks, halftracks and artillery tractors (because each is considered to have an "inherent" driver) can move (or be used for spotting purposes) if not loaded. See page 39 for more information on Unknown Units and using Transport units for spotting.



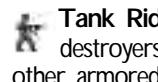
**Loading:** To load a unit onto any type of "empty" transport, the transport unit must be in the same hex as the unit you want to "load up", and the transport unit must have at least as many SP as its potential passenger. Both must also have the requisite number of AP to load. Select **both** units (you can double-click on the hex if they are the only two units in the hex; otherwise see "Multi-Selecting" below), then click on the "load/unload" Tool Bar button (depicting a truck with infantry).

To find out the Loading Cost for each unit type that can be loaded, check the unit data in the Appendices of this manual (or press **F4** during the game), where the cost to load (or unload) that unit is listed.



**Unloading:** To *unload* a currently-loaded transport unit (one displaying a full-color helmet icon in the lower right corner of the unit's Info Box), select the unit and click on the "load/unload" button. Note that it generally costs 25 AP to unload from most transport types, but only 10 AP to unload "riders" from tanks. To find out the Unloading Cost for each unit type that can be loaded, check the unit data in the Appendices of this manual (or press **F4** during the game), where the cost for a unit to load or unload is listed, with the exception being unloading riders (see Tank Riders; below) and unloading from bicycles, motorcycles, boats and rafts, which have their own Unloading Cost that applies instead of the cost listed for the passenger.

**Multi-Selecting:** To load a unit onto a transport in a hex that contains more than just those two units, you will probably find it easiest to select them by first opening the Unit List (press the **U** hot key) and then left-clicking on each of their Info Boxes. Alternatively, you can also select them by a careful combination of right- and left-clicking on the single Info Box. Each right-click will cycle to the next unit in the hex, and each left-click will select (or unselect) the displayed unit. Note that a selected unit has its nameplate on its Info Box highlighted.



**Tank Riders:** Medium and heavy tanks, as well as most assault guns and tank destroyers, have the ability to carry infantry "riders" but cannot tow guns. Tanks and other armored vehicles that are allowed to carry "riders" can transport double their amount of SP (e.g., a 3-SP tank platoon can carry a 6-SP infantry platoon, etc.). Such vehicles are designated by the presence of a "soldier with submachinegun" icon in the lower-

left corner of their Info Box. Note that these types of vehicles cannot fire while loaded.

 **Towing:** Certain vehicles (e.g., artillery tractors) can tow guns but cannot carry infantry. Such vehicles are designated by an "anti-tank gun" icon in the lower-left corner of their Info Box.

**Reachable Hexes:** Press the **H** hot key after selecting a unit to move to highlight all hexes which the selected unit can reach during the current movement phase. This display takes into account the number of APs the selected unit has remaining, and the effects of extra hexes reachable due to Double Time, and if the unit is marked to "Save APs for Firing" and/or "Save AP's for Unloading". The Reachable Hexes display updates automatically as the unit moves.

## Reinforcements

Many scenarios have reinforcements that enter during play. To view the list of scheduled reinforcements, press the **S** hot key. **Note:** if *Fog of War* is in effect, the Schedule Dialog will list only friendly reinforcements. Each reinforcement group is listed on a separate line with the following information: turn of entry; percentage chance of entry (shown as "?" if the Extreme Fog of War optional rule is in effect); hex of entry; first unit of that group. Since most reinforcements contain more than one unit, you can double-left-click on any entry of the Scheduled dialog to display a window listing all units of that reinforcement group. Furthermore, if you left-click on a reinforcement group in the Schedule Dialog, the map will scroll to display the entry hex of that group.

**Example:** A line of the Schedule Dialog might display "3 (60%) at 16,18 Axis Type 95 HA-  
GO Light Tanks...". This indicates that on Game Turn 3 a reinforcement group containing Axis  
HA-GO Light Tanks (and other units, note the "...") is scheduled to arrive at hex 16,18. How-  
ever, their arrival chance is only 60%.

Unless the arrival chance is 100%, the program will perform a “percentile” (1-100) die roll, beginning on the turn listed, and at the beginning of each friendly Player Turn thereafter that the reinforcement group has still not arrived. A die roll equal to or less than that reinforcement group’s printed entry chance results in that reinforcement group arriving. *Note: If the Optional Rule for Extreme Fog of War is on, the percent chance of arrival is always hidden.* If a scheduled reinforcement fails to enter on the designated turn, the roll is repeated at the same percentage chance on each following Player Turn until that reinforcement group arrives.



If the Command Report dialog mentions that "Reinforcements have arrived" you should press the "Arrived" tool bar button (or the **A** hotkey).

**Arrived Dialog:** Each group of reinforcements arriving on the current Player Turn is listed on a separate line. Double-left-click on a listed group in order to have those units placed on the map. Once placed you can then select and move the units.

**Temporary Overstacking:** The program allows reinforcing units to be placed in their entry hex in excess of normal stacking limits.

**Displacement:** If a reinforcement group enters the map on a hex occupied by an enemy unit(s), the enemy unit(s) will be displaced into an adjacent hex (Exception: air-landed reinforcement group; see next page).



## Paradrops & Gliders

Units that enter play on parachutes or gliders will arrive as reinforcements and are subject to "scattering" and taking casualties depending on the terrain they land in or their proximity to enemy units. The amount of scatter for each glider/paradropped reinforcement group is preset by the scenario designer. In addition to scatter and terrain-induced casualties, units landing by parachute (only) always land with 0 AP, are also automatically disrupted, and affected by "low ammo" status to reflect the additional danger and wider dispersal normally experienced by a paradropped unit.

**Paradrops Casualties:** A unit paradropping into dense jungle, marsh, swamp or shallow water, or landing adjacent to one or more enemy units, takes a random SP loss ranging from 1 to the maximum SP of the affected unit. This loss is halved (fractions rounded down) if the unit drops into rough, jungle, forest, flooded rice paddy, village, suburb, city, factory or special-building terrain. Note that such losses are *not* counted as losses in the scenario victory conditions for victory point purposes.

**Glider Landings Casualties:** A glider-borne unit landing in rough, swamp, jungle, dense jungle, flooded or dry rice paddy, palm orchard, orchard, forest, village, suburb, city, factory or special-building terrain, or if it lands adjacent to one or more enemy units, takes a random SP loss ranging from 1 to the maximum SP of the affected unit. This loss is halved (fractions rounded down) if the unit lands in marsh, shallow water or palms. Note that such losses are *not* counted as losses in the scenario victory conditions for victory point purposes. Units landing by glider land with 100 AP and are only Disrupted if they incurred casualties when landing.



### Landing Craft and Amphibious Units

*Rising Sun* provides various types of landing-craft units (LCA, LCVP, LCM, LCT, etc.) capable of movement in deep and shallow water hexes. Units carried aboard such transport can disembark only when the transport units are in shallow water hexes.

Additionally, amphibious units (transport and non-transport; denoted by the symbol shown at left) are capable of movement in water *and* on land. Units carried aboard amphibious transport can disembark in shallow water hexes *or* on land. Examples of amphibious units are U.S./British Sherman DD Tanks, U.S./British DUKW Trucks, and British Buffaloes.

### Organizational Movement

 *Rising Sun* features two types of "Organizational Movement", whereby you can quickly and easily move all the as-yet-unmoved units of an organization. Both types of Organizational Movement require that the "Highlight Organization" Tool Bar button is "on", thus highlighting all the units that belong to the same organization as the currently selected unit.

**Column Movement:** Select a unit, press the "Highlight Organization" Tool Bar button, and then, while depressing the **Alt** key, *right-click* in a hex you wish the unit to move to, all of the units of that unit's organization will move toward the selected hex. This type of movement is especially helpful when you have a number of units of the same organization in a "road column"; if so, pick the *lead* unit of the column to move. You can also "drag and drop" in lieu of right-clicking, if preferred.

**Echelon Movement:** Select a unit, press the "Highlight Organization" Tool Bar button, and then, while depressing the **Shift** key, *right-click* in a hex you wish the selected unit to move to, all of the units of that unit's organization will move in the same general *direction and distance* (but *not* toward the same location) as the selected unit. You can also "drag and drop" in lieu of right-clicking, if preferred.

 **Double Time Movement and Fatigue:** An infantry, cavalry, or wagon (exception: if transporting a gun incapable of moving on its own) unit can use Double Time movement if it is not *currently* marked with an "F" (fatigued) icon. A unit currently capable of using Double Time movement is also denoted by a "charging soldier" icon displayed in the icon bar on the left side of its Info Box (the "charging soldier" icon also denotes the light gun and mortar units that are capable of being

manhandled; i.e., that can move for short distances without transport). From the moment that the unit is commanded to use Double Time, it pays only three-fourths of the *normal* AP cost to enter a hex (or cross a terrain hexside) during that Player Turn. To conduct Double Time movement, select the unit, press the "Double Time" Tool Bar button, and move the unit. Once a unit has been flagged to Double Time, it cannot be undone.

**Note:** A cavalry unit does *not* have to Double Time on a turn in which it Assaults (in fact, it would be better not to, so that the detrimental effects of Fatigue will not apply to the cavalry unit's Assault).



 A unit that begins its Player Turn Fatigued (an "F" icon is displayed in the unit's Info Box) cannot Double Time during that turn. The "F" icon is automatically removed at the start of its Player Turn if it did not Double Time in the previous Game Turn.

A Fatigued unit that attacks (Direct Fire or Assault) has its Attack Strength halved (fractions rounded down, to a minimum of one). A Fatigued unit that defends in Assault has its Defense Strength halved (fractions rounded down, to a minimum of one).

 **Fixed Units:** Some scenarios feature units that (usually for historical purposes) have been "fixed" in place. A Fixed unit is denoted by a red circular icon displaying a white "F" at the top of the icon bar of the Info Box. Such a unit is unable to move until it is either attacked or "released" (if released, the Command Report will report this occurrence).

You can check the "Release Dialog" by selecting "Releases" from the "Reinforce" pop-down menu or by pressing the **F** hot key on your keyboard. The Release Dialog lists each organization or unit that is scheduled to be released during that scenario (if any).

**Example:** A Release Dialog line might display: "8 (70%) Allied 2nd/1 Marine Battalion". This indicates that the Allies' 2nd/1 Marine Battalion has a 70% chance of being released, starting on turn 8. To highlight units of the 2nd/1 Marine Battalion on the map, you can left click on its listing in the Release Dialog.

Unless a release chance is 100%, the program will perform a "percentile" (1-100) die roll, beginning on the turn listed, and at the beginning of each friendly Player Turn thereafter that the organization is still not released. A die roll equal to or less than that organization's printed release chance results in that organization being immediately released.

**Note:** If the optional rule for Extreme Fog of War is on the percent chance of release is hidden.



### Combat

There are five basic types of combat in *TalonSoft's Rising Sun*: Direct Fire, Indirect Fire, Assault, Air Attacks and Minefields. Anti-Aircraft Fire is considered part of Direct Fire. Units capable of Direct Fire cannot attack using Indirect Fire. However, units capable of Indirect Fire can also attack using Direct Fire.

The basic way to attack an enemy unit (using Direct or Indirect Fire) is to:

- 1) Select your attacking unit by clicking on its 3D icon (if playing on a 3D map) or its Unit Box once (ensure that the game is in Fire Mode, not Move Mode; see page 29 for an explanation of Fire and Move modes).
- 2) Move your cursor over the target you wish to attack. A display showing the soft and hard attack factors will appear.
- 3) Right click on the unit you wish to attack.

There is no limit to how many times an individual unit can be attacked in a turn.

A unit can only attack if it has enough APs to commit to the attack. The number of APs each unit expends to conduct a Direct or Indirect Fire attack is listed as the Fire Cost in that unit's Info Box.

Direct and Indirect Fire use a combination of the attacker's range to the target plus its Strength to determine the actual effectiveness of the attack. Most units have range modifications to better reflect their real-life capabilities. Each Disrupted unit has its Attack Factor halved prior to any other modifications.

A unit that is a passenger cannot attack or be attacked *directly*. However, when its transport vehicle is attacked, damage may also apply to the passenger.

**Note:** Passengers and Riders are extremely susceptible to damage while loaded—especially if their means of conveyance is a Soft Target type.

### Line of Sight

Line of Sight (LOS) and terrain also affect attacks. Direct Fire may not be initiated against a target that the attacker cannot see. Line of Sight can be blocked by terrain in a hex, elevation changes, weather (visibility), smoke, other units and a hex having six or more wrecks in it. See page 73 for information on how terrain concealment values are used to determine what units are revealed. The various ways LOS can be affected is discussed below.

**Terrain:** The predominant terrain in each hex can potentially block LOS, depending on the height of that terrain. To check the concealment values and the height (in meters) of each terrain type refer to the Terrain Types section (pages 59-73) or to the Parameter Data file (press the **F3** key when the game is open).

**Elevation Changes:** The elevation changes depicted by the maps will block LOS in a natural manner.

**Weather (Visibility):** Each scenario has a Weather condition associated with it that limits visibility (even at Night) anywhere from a minimum of 1 hex (if conditions are "Very Thick Fog") to a maximum of 20 hexes (if conditions are "Clear"). A scenario's weather and visibility limits can be found by displaying the Scenario Information screen (hot key **I**). Weather will not change during the course of a scenario. See the following chart for the list of possible weather conditions and the visibility limits associated with each. **Note:** A scenario defined as taking place at Night (see page 54) has a default visibility of 1 hex, but the weather will still determine the maximum visibility that a unit can fire at a gunflash or an illuminated Hex.

**Smoke:** Smoke is an obstacle to LOS if it exists between the firer and the intended target. A unit in a Smoke hex can still fire, or be fired upon, but only at half attack strength. Smoke can be fired only by certain Indirect Fire units, and halves the non-assault attack into or out of its hex. See pages 43-44 for more information on Smoke.

**Units:** If a hex contains 13 or more strength points of *non-wreck* units it is considered to have enough units therein to sufficiently block LOS through that hex.

**Wrecks:** If a hex contains 6 or more strength points of wrecks it is considered to have enough wrecks therein to sufficiently block LOS *through* that hex. Less wrecks are required to block LOS than non-wrecks due to the inherent smoke of wrecks. Note that only a destroyed "hard target" leaves a wreck.

| Weather Condition | Visibility* | Weather Condition | Visibility* |
|-------------------|-------------|-------------------|-------------|
| Clear             | 20          | Light Fog         | 6-7         |
| Overcast          | 18-19       | Heavy Rain†       | 4-5         |
| Slight Haze       | 15-17       | Fog               | 3           |
| Light Rain        | 10-14       | Thick Fog         | 2           |
| Squalls           | 8-9         | Very Thick Fog    | 1           |

\* In hexes

† Snow if Ground Conditions are snow



**Unknown Unit:** When Fog of War is in effect, if the *only* friendly unit(s) that has LOS to an enemy unit is an *unarmed* unit such as a truck, wagons, prime mover or artillery tractor *and* that is *not* carrying a passenger, that enemy unit is displayed as an "Unknown Unit". On a 2D view map an Unknown Unit is shown by a marker with a "?"; on a 3D view map a 3D icon in the form of a "?" is displayed.

**Note:** A transport that requires passengers in order to be able to move (such as a bicycle, motorcycle, boat, raft, or horse) cannot be used for spotting.



**Visible Hexes:** To highlight the hexes that can be seen from a specific location (i.e., that are in the LOS of a certain hex), left-click once in that hex (thus “hot spotting” that hex), then press the Tool Bar button displaying the “binoculars” or the **V** hot key. All hexes not visible from the hot-spotted hex are shaded. Press the **V** hot key again to turn off the “visible hexes” feature. **Note:** Just because a friendly unit has LOS to a hex does not mean that any/all enemy units in that hex are automatically visible.



### Direct Fire

The most common type of attack is probably Direct Fire. Direct Fire is performed only by units that have a LOS to their target.



To initiate a Direct Fire attack, the unit you want to conduct the attack with must be selected, and you must be in “Fire Mode”. If currently in “Move Mode”, you must either depress the second-from-the-left Tool Bar button or hold down the **Ctrl** key to toggle to “Fire Mode”. In “Fire Mode” this button (and your on-map cursor) displays a “crosshairs” (a circled “+”). When your on-map “Fire Mode” crosshairs cursor “roams” over a hex containing a valid target (i.e., an enemy unit within range and in line of sight of the selected firing unit), a small box with two numbers is displayed over the target hex. This box lists (left to right) the firing unit’s nominal attack strengths vs. any hard and soft targets in that hex. Note that these Attack Strengths automatically increase as the range to the target decreases, and decrease as the range increases, thus simulating “range attenuation” (lessened firepower at increased range).

**Example:** “10/4” might be displayed when an anti-tank platoon targets a hex. “10” is the attack factor the platoon would use against a “hard” (or armored) unit in that hex, and “4” is the attack factor the platoon would use against a “soft” (or non-armored) unit in that hex.

On a 3D map, when the Fire Mode cursor roams directly over a valid target and highlights it in red, a more detailed box appears that lists (from left to right) that target’s Strength Points, its name, and the firing unit’s nominal attack strength vs. that target.

**Example:** “3 - M-8 @ 10” would signify a 3-SP M-8 (U.S. Armored Car) being targeted by a firing unit with an attack factor of “10”.

To carry out the attack, right click on the unit/hex you wish to attack. If playing on the 3D map you can right-click directly on the 3D icon. If you do not click directly on the 3D icon and the hex contains multiple potential targets, a Target Selection Dialog will appear allowing you to select the final target of the Direct Fire attack.

There is no limit to how many times an individual unit can be attacked in a turn. However, a unit can only attack if it has enough APs to perform the attack.

**Infantry vs. Armor:** Most infantry-type units can fire at a hard (armored) target only when it is adjacent to that target. This represents the fact that most infantry-carried “light anti-tank weapons” had a very short range (exception: some MG platoons have a two-hex range vs. “hard” targets). Note that as the war goes on, the effectiveness of infantry attacks vs. armor increases, reflecting the increased lethality of such anti-tank weapons as the U.S.-made “bazooka” or the British “PIAT”.

### Opportunity Fire

In *TalonSoft’s Rising Sun*, Opportunity Fire (OpFire, that is, friendly fire during the enemy’s Player Turn in reaction to an enemy action) will occur automatically. OpFire has a chance to occur (and is performed automatically by the computer) when an enemy unit expends AP in the range and LOS of a friendly (opposing) unit, *providing* that friendly unit has enough “saved” AP (equal to or greater than its Fire Cost).



During your Player Turn you can automatically have a unit save enough APs to conduct OpFire in the following enemy Player Turn. To do this, select the friendly unit and press the “Save AP’s for Firing” button on the Tool Bar. Note that you do not have to use the “Save AP’s for Firing” button to use OpFire—it just has to have enough AP left.



When “Save AP’s for Firing” is in effect for a unit, a small full color “bullet” icon will appear along the left side of the Info Box of that unit, and the unit will not be allowed to expend all of its AP (in other words, the program will automatically save enough AP for the selected unit to be able to fire once).

### Setting Opportunity Fire Globally

Using the Opportunity Fire dialog (available by selecting “Assign Opportunity Fire” from the Units pop-down menu, or by pressing hot-key **D**), you can set the *maximum* allowable range for a listed unit type to conduct OpFire. Ensure that no unit on the map is currently selected. The firing unit types are listed along the left side of the dialog; the possible target types are listed across the top. Selectable ranges for a firing unit are listed as Short, Medium and Long, and may be adjusted during play of a scenario as many times as desired. Basically, a unit’s “short” range is considered to be its maximum range vs that target type times one-third. Its “medium” range would be its maximum range vs that target type times two-thirds. For instance, if a unit has a maximum range of 15 hexes vs a soft target, its medium range for that target type would be 6 to 10 hexes, and its short range would be 1 to 5 hexes.

If you do not wish a certain type of unit to ever conduct opportunity fire at a certain target type, set that unit type’s range to “N” in the Opportunity Fire Dialog.

### Setting Opportunity Fire for Individually Units

Opportunity Fire can also be set on a per-unit basis. This is useful when you want a certain unit to only fire at short range, but most other units of its type to fire at a longer range setting. To set OpFire for an individual unit, select the unit, then press the **D** hot key to display the OpFire dialog. The OpFire dialog that appears applies only to the selected unit(s). Other setting are grayed out. If more than one unit is selected, the options that are not grayed-out will affect all units selected.

**Note:** The most restrictive OpFire option set for a unit takes precedence; e.g., a globally-set option for a unit type to fire at “short” range will take precedence over an individually-set option for an individual unit of that type to fire at “medium” range.



### Indirect Fire

Most scenarios feature a combination of Direct- and Indirect-Firing combat units. Artillery, mortars and rockets can attack using Indirect Fire, which is used to attack units both in the firer's LOS as well as units out of the LOS of the firing battery. Note that such units can also conduct Direct Fire vs. enemy units that are their LOS in the normal manner. Indirect Fire attacks however, unlike Direct Fire attacks, potentially affects *all* units in the target hex. **Important:** All indirect fire is "pre-plotted" one Game Turn in advance (simulating the time it takes for a forward observer to establish access to the battery, plot the fire mission, call in spotting rounds, etc.). Once plotted, an artillery mission cannot be recalled.

 Press the "Artillery Dialog" Tool Bar button to display the Artillery Dialog window, which displays each indirect fire unit for the current side. The best reason for using the Artillery Dialog is because it displays your "off-map" artillery as well as your on-map artillery. Each entry lists the Strength Points of the battery, the battery type, and its hex location. An entry listed in black is eligible to be fired that turn; if the entry is printed in gray that battery is not eligible to fire that Game Turn (this may be due to the battery being in transit, out of range of all eligible targets, or because it is temporarily out of contact with its observer). Once the unit has expended all of its shots, it is automatically removed from the Artillery Dialog. Double-clicking on the unit in the Artillery Dialog will center the map on that unit, as will pressing the Locate button.

Units with an asterisk (\*) preceding their name in the Artillery Dialog are considered "off-board" artillery. As such, these units are outside the playable map area, and cannot be moved or attacked and can only attack using Indirect Fire.

**Note 1:** If you plot an attack for an Indirect Fire-capable unit without using the Artillery Dialog (for instance, by simply selecting the on-map Indirect Fire unit and right-clicking on an intended target), the fire will automatically be resolved as Direct Fire if that target is in LOS of the firing unit.

**Note 2:** Most artillery units with full (i.e., 100) Action Points will be allowed two shots per Game Turn, since the Fire Cost of most artillery units is 50 or less APs per shot.

**Random Armor Disablement:** An Indirect fire attack vs. an armored target has a very slight chance of disabling (i.e., eliminating) a SP from an armored unit.

### To plot an Indirect Fire mission:

1) Highlight the battery in the Artillery dialog. **Note:** Pressing the Artillery Dialog's "Locate" button will display that battery's Info Box and hot-spot the hex that battery is in.

2) "Roam" your cursor over the map. Note that enemy units within range of the selected battery are highlighted in red. As your cursor roams over eligible target locations, small boxes appear listing that battery's hard and soft attack numbers (respectively) vs. that hex.

3) Right-click on the map (in a location displaying the hard/soft attack numbers) to plot that artillery fire mission. Most indirect fire units can be plotted to shoot twice per Game Turn.



**On-Call marker:** A map location that has been targeted for one or more Indirect Fire or Air Strike attacks is marked with a circled "crosshair" icon as a reminder of the incoming attack.

**Indirect Fire Density Modifier:** In addition to the normal modifiers (see the Combat Explanation on pages 50-51 of this manual), in an Indirect Fire attack (only) each target unit's Strength Points (SPs) are multiplied by the applicable nominal attack strength and the result is then divided by 6 to find the effective attack strength vs. that unit. (In other words, effective Attack Strength = [nominal Attack Strength \* SP#] / 6)

**Example:** A 6-SP target will have the nominal Attack Strength applied to it. A target unit of 2 SPs will have 2/6 (1/3) of the Attack Strength applied to it. The rationale for this calculation is that the indirect-fire results against a single target unit of, e.g., 4 SPs should be the same as the total indirect-fire results against two target units of 2 SPs in the same hex. The calculation will apply the indirect Attack Strength against target units proportional to their SPs, thus resulting in a total combat result comparable to firing at a single unit of the same total strength.

**Indirect Fire by the Map:** If the Optional Rule for "Indirect Fire by the Map" is enabled, you can plot Indirect Fire missions at hexes you don't have a Line of Sight to. If this Optional Rule is not on, you are limited to plotting non-Smoke fire missions only into hexes that at least one of your combat units has a Line of Sight.

**Drift:** It is possible that plotted Indirect Fire can "drift" off the intended target hex. This is especially likely to occur if the targeted hex is out of Line of Sight of all friendly units.

**No Spotter:** Indirect Fire is resolved at half firepower if the targeted hex is out of Line of Sight of all friendly units when the attack is resolved.

### Laying Smoke

 **Smoke Ammunition:** A unit capable of firing Smoke ammunition displays a small "smoke" icon in the icon bar on the left side of its Info Box. Engineer infantry, as well as many (but not all) units capable of indirect fire can "lay smoke". Laying smoke is similar to firing normally, except the **Alt** key must be depressed when you right-click on the target hex.

**Effects:** A unit firing into or out of a hex containing Smoke has its Attack Strength halved (fractions rounded down, to a minimum of one). Smoke has no effect on assaults. Additionally, line of sight is blocked *through*—but not *into* or *out of*—a hex containing Smoke.

The total number of smoke missions available in a scenario for each side is listed in the Unit List (hot key **U**). The number of smoke missions for the Allied side is listed first, followed by the number of missions for the Axis side. Additionally, the Status Bar lists the number of smoke missions remaining for the phasing side. If Fog of War is in effect, the number of smoke rounds available for the opposing side is shown as a "?".

Once a side's smoke number reaches "0" no more smoke may be laid by that side for the remainder of the scenario.



### Air Attacks

At the start of each friendly Player Turn you are informed of how many Air Attacks you have remaining for use during the *entire* scenario (which also includes the current turn). If you use all of your listed Air Attacks in one turn, you will not have any to use in following turns. Due to the importance and strength of Air Attacks, it is usually wise to be conservative in their usage. Not every scenario will have Air Attacks.

To call for an Air Attack, select ("Hot Spot") the location you wish to attack by left-clicking on it once. Then simply press the Air Attack button on the Tool Bar. A crosshairs icon will be placed in the selected location (the same icon used to denote an "on call" indirect fire attack). Note that only one Air Attack may be plotted per location. If you want more than one Air Attack to hit in the same area, simply plot the additional one in a nearby location.

**IMPORTANT:** Once plotted, an Air Attack cannot be cancelled nor re-plotted, so be sure to have the proper location selected when you plot the attack.

Each Air Attack has been individually modeled with unique "hard" and "soft" attack values, as well as an individual defense value. The number of strength points that a given Air Attack represents varies depending upon that plane type. See the charts displaying data on the various types of air units on page 183.

A plotted Air Attack has a 65% chance of arrival on each turn (and each turn thereafter until it arrives). An arriving Air Attack will not always attack the target you pick; it will "search" for a proper target within about a five hex radius of its plotted hex. The more

targets that there are within that radius the less likely it is that the Air Attack will hit the plotted location. There is even a slight chance that an Air Attack may make a mistake and attack a "friendly" unit! Therefore, it is advisable not to request an Air Attack in an area that has a lot of friendly units.



If a side has more than one type of air attack assigned to it, the Air Attack that arrives is randomly determined from the "pool" of air attacks for that side (as determined by the scenario designer). The types and number of Air Attack still available to a side in a scenario (if any) can be viewed by selecting "Available Air Support" from the Status pop-down menu. This information is not shown for the opposing side if Fog of War is on.



**Anti-Aircraft Attacks:** Any unit capable of Anti-Aircraft fire, and that possesses sufficient AP to fire and is not currently loaded on (in tow by) a vehicle might conduct Opportunity Fire at an enemy Air Attack if that Air Attack occurs within the soft-attack range of that AA unit.

**Note:** Anti-Aircraft fire from AA units with guns larger than 40mm have their attack factor reduced by 75% to simulate their reduced (i.e., non-automatic) rate of fire and slower reaction time. Such batteries were less capable of reacting to low-flying fast-attack aircraft since they were intended more for defense against high-altitude aircraft. Such guns were also more likely to be employed in a Direct Fire role vs. enemy ground targets and thus be less prepared for usage in an AA role.



## Assault

To assault, the attacker(s) must have an Assault Value greater than "0", must be *non-disrupted* and in "Move" mode and must have enough APs to assault (20 AP plus the AP terrain cost of the hex being assaulted). Select the units to assault, then right-click on an adjacent enemy-occupied hex. If the assault is "legal", the assault icon will appear in the hex and a dialog box will appear announcing the assault. If desired, you can repeat this method to add more attackers to the assault (up to the normal stacking limits, regardless of the enemy units in the hex being assaulted). The more units that participate in an assault, the better the odds that the assault will be successful. More than one assault can be conducted by a unit in the same turn, depending on the number of AP the unit has remaining. Because assault combat is assumed to take place *in* the hex being assaulted, terrain modifiers do not apply to assaulting *non-vehicular* units.

**Terrain Prohibitions:** A unit can participate in an assault only if it would normally be allowed to enter the hex being assaulted; e.g., no unit can conduct an assault across a cliff hexside, nor across any other hexside that the unit could not normally cross.

**Vehicle Assault vs Pillbox:** A vehicle cannot assault a hex containing a pillbox (but can counter-assault units assaulting *from* a pillbox hex). **Exception:** Certain vehicles (those designated in the Unit Handbook as mounting a *flamethrower*) can assault a hex containing a pillbox. Such a flamethrower-equipped vehicle is denoted by a (flame) icon being displayed in along the left side of its unit Info Box. Vehicles can assault bunkers normally.

**Design Note:** Most vehicles (even non-flame tanks) are prohibited from assaulting Pillboxes as these represent fortified concrete structures—impervious to overrun by even fully-tracked units.

**Passengers:** Passengers affect the assault/defense strength of assaults and counter-assaults only when aboard armored halftracks.

**Surrender:** The target of an assault is more likely to surrender if its hex is attacked from multiple directions, especially if those directions are diametrically opposed.

 To resolve an Assault, click on the "Resolve Assault" Tool Bar button. To cancel a planned Assault, select "Cancel Assault" from the "Assault" pop-down menu.

## Assault Value and Defense Strength modifiers:

**Note:** The following modifications are cumulative; i.e., a unit that has its Assault value halved and then tripled in effect has it increased by 50%.

Each *vehicular* unit participating in an assault has its Assault Value modified by the terrain modifier of the hex being assaulted.

A Disrupted unit defending in an Assault has its Defense Strength halved (fractions rounded down, to a minimum of one); when "counterattacking" (see below), such a Disrupted unit has its Assault Value halved (fractions rounded down, to a minimum of one).

The Defense Strength of a fortification (see the *Rising Sun* Parameter Data file) in the defender's hex modifies the Assault factor of each attacking unit.

The Assault Value of an Engineer infantry unit is doubled when assaulting a hex containing a hex containing a Pillbox or Bunker.

The Assault Value of an Engineer infantry unit, or a vehicle defined as being equipped with a flamethrower, is doubled when assaulting a hex containing a Cave.

The Assault Value of an attacking unit, or the Defense Strength of a defending unit, is increased by the presence of a Leader of that unit's organization.

The Assault Value of a passenger on an armored carrier capable of assaulting (such as an M3 halftrack) is halved and added to the Assault Value of the assaulting carrier.

The Assault Value of an *attacking* unit that is Low on Supply is decreased by one-fourth (fractions rounded down, to a minimum of one).

The Assault Value of a Fatigued attacker is halved (fractions rounded down, to a minimum of one).

The Defense Strength of a Fatigued unit being assaulted is halved (fractions rounded down, to a minimum of one).

The Assault value of mounted cavalry is tripled (the rider's Assault Value x3). However, mounted cavalry cannot assault any hex containing a Hard Target (i.e., an armored vehicle) or vs. a target in "building-type" terrain (i.e., a hex containing a bunker, pillbox, suburb, village, special building or factory).

The Assault Value of a Japanese unit conducting a Banzai Attack is tripled (but also halved for double time, for a net increase of 50%); see page 77 for more information.

**Smoke and Assaults:** Assaulting into, and/or out of, a hex containing Smoke has no effect on the Assault Value nor Defense Strength of any involved unit.

**Facing Effects:** The facing of a unit (the direction from which it is attacked) has no effect, even if the Optional Rule for Armor Facing Effects is on.

**Counter-assault:** Each assault also results in a "counter-assault" by the defending units. Normal assault rules apply to a counter-assault except that a disrupted unit can make a Counter-assault.

**Assault Odds:** Because each assault also results in a "counter-assault" by the defenders, the "Assault Odds" dialog will the final modified assault value of the attacker vs the final modified defense value of all defending units, as well as how the assaulting units defend when being counter-assaulted (Exception: the amount of information displayed depends on the Fog of War option in effect).

The text in the Assault Status dialog for the assault and corresponding counter-assault follows the format:

"attack of a (b SP) vs defense of c (d SP)"

- "a" equals the total of the assaulting units' modified assault values;
- "b" equals the total number of attacking Strength Points;
- "c" equals the total of the defending units' modified defense strengths; and
- "d" equals the total number of defending Strength Points.

The numbers displayed in the Assault Odds dialog are after all modification due to the presence of a leader(s), low ammo, disruption and/or the presence of a fortification (or terrain modifier, if the assaulting unit is vehicular) in the assaulted hex. The results are then applied to the proper line of the Combat Results Table. Each attack is made once vs each defending unit.

**Example:** Two 6-SP U.S. rifle platoons (assault 5) are assaulting one 6-SP Japanese rifle platoon (defense 7). The program's Assault Odds dialog reports "Assault: Attack of 60 (12 SP) vs defense of 42 (6 SP)". Below this appears "Counter-assault: Attack of 42 (6 SP) vs defense of 84 (12 SP)". The U.S. rifle units have a final assault strength of "60" due to their total of 12 SP x 5 assault value.

If the Japanese rifle platoon were instead defending from within an Improved Position, the dialog would report the following assault: "Attack of 45 (12 SP) vs defense of 42 (6 SP)", as the attacking units' assault value would now be modified by the Improved Position's modifier of .75 ( $60 \times .75 = 45$ ), as a defending unit in the original assault (but not defenders in a counter-assault) gets the defensive benefit of a fortification (if any).

**Cancelling an Assault:** If you decide that you do not wish to assault a hex, or wish to remove a unit from the assault, you must cancel the entire Assault prior to its resolution. To cancel an assault, select "Cancel Assault" from the "Assault" pop-down menu.



### Minefields & Engineers

A convenient way of slowing down or diverting an enemy attack is with minefields. Minefields are pre-set in a scenario and can only be removed by an engineer (referred to by the game program as a "Mine-Clearing Unit"). Each *non-engineer* unit that enters a minefield hex automatically triggers a mine attack vs. that unit, whereas a Mine-Clearing Unit can enter a minefield without being attacked (see Clearing Minefields and Blocks, below). The strength of a minefield attack is determined by the "level" of the minefield. A "1" minefield attacks on the 1:1 row of the Combat Results Table, a "2" minefield attacks on the 2:1 row, and a "3" minefield attacks on the 3:1 row. To view the strength of a minefield hex, switch to the "2D Normal View" map (hot key 4), or turn on the Unit List (hot key U) and click in (hot spot) the minefield hex. The strength of the minefield is displayed in the Unit List along the right side of the interface.

**Engineers Laying Smoke:** Engineer infantry have the unique ability to "lay smoke" in their own hex. See page 43 for more information about laying smoke.

### Clearing Minefields & Blocks

An undisrupted Mine-Clearing unit that begins its Player Turn in a minefield or blocked hex will automatically lower the level of that minefield by one. Mine-Clearing units include combat engineers and certain specialized Allied engineer armored vehicles. A Mine-Clearing Unit can enter a minefield without being attacked. Additionally, an undisrupted (foot) engineer (but not a vehicle that is a Mine-Clearing unit) that begins its Player Turn in a hex containing a "Block" fortification automatically eliminates that fortification.

**Note:** To locate Mine-Clearing Units, use the "Highlight" menu item from the "Display" pop-down menu, then select "Mine-Clearing Units". All friendly units capable of clearing minefields will be highlighted.

### Bridge & High Wall Demolition

An undisrupted engineer unit that has not yet expended any AP may attempt to destroy an adjacent "high wall" hexside or a hexside (but not full-hex) bridge using its inherent demolition capabilities. Select the engineer unit, then from the "Units" pop-down menu, choose "Damage Wall or Bridge". In the dialog box that appears, select the hexside "direction" (up, up-right, down-right, etc.) to attack, and press the **OK** button. An attack is performed, using the engineer's attack factor and its SP strength, vs. the inherent strength of the feature. Attempting a demolition requires 100 AP.

## COMBAT EXPLANATION

When one unit fires at another unit (whether by Direct or Indirect fire) the basic method in which the attack is calculated is as follows:

### (Modified Attack Strength) vs. (Modified Defensive Strength)

This attack vs. defense comparison determines the location (i.e., the "row") of the Combat Results Table (CRT) where the attack will be resolved. Note that attack-vs.-defense strengths between those listed on the CRT (access *Rising Sun's* Parameter Data from the "Help" pop-down menu) are calculated individually by the program on a pro-rated basis, based on the result probabilities of the two CRT lines the attack falls between.

**Example:** A net attack strength of 11 vs. a net defense strength of 4 has slightly lower result probabilities than an attack of 3 vs. a defense of 1, but higher probabilities than an attack of 2 vs. a defense of 1.

#### 1. The Modified Attack Strength is calculated by:

(Attack Strength<sup>\*\*</sup> of attacker + c) x (terrain/fortification modifier of defender's hex)<sup>\*\*</sup>

<sup>a</sup>: The Attack Strength is the Hard- or Soft-Attack Strength listed when the fire-mode cursor is roamed over the target hex (or if roamed over the actual 3D icon). This number varies depending on the range to the target.

<sup>c</sup>: Command Rating of same-hex Leader provided that Leader currently has APs greater than or equal to the AP Fire Cost of the firing unit **and** the firing unit is subordinate to that Leader.

<sup>\*: x .5 if firing unit is Fatigued, Disrupted, firing out-of/into Smoke (per each occurrence; FRD; minimum of 1).</sup>

**Terrain/Fortification Modifier of Defender's Hex.** To view these modifiers, see the *Rising Sun* parameter data file (from the Help pop-down menu).

<sup>\*\*: certain terrain and fortification types will modify (increase or decrease) the Attack Strength of units that fire at targets in that terrain type.</sup>

#### 2. The Modified Defense Strength is:

(defense factor of defender) + (fortification bonus<sup>\*</sup>)

<sup>\*: +10 if defender can claim benefit of bunker or pillbox (+5 during assault)</sup>

When a unit attacks, the program actually conducts a number of attacks equal to the attacking unit's SPs. The number of SP is halved (FRD, to minimum of one) if the attacking unit is Low on Supply. The number of SP can also be increased if the target hex is richly populated with targets; see Direct Fire Target Density Value, below. The program then takes each individual result and determines the net result vs. the defender. Attack-vs.-defense strengths between those listed in the Combat Results Table are calculated individually by the program on a pro-rated basis, based on the result probabilities of the two Combat Results Table lines the attack falls between.

**Direct Fire Target Density Value:** If the total SP in the target hex exceeds 12, 12 is then subtracted from that number to arrive at an Excess Density Value. This value is then multiplied by 8% and by the SP of the firing unit (fractions rounded up), resulting in a density bonus. This density bonus is added to the nominal SP of the firing unit.

**Example:** A 3-SP firing unit is firing at a target in a hex that contains a total of 19 SP (the number of **units** that are in the hex is irrelevant). Since 19 is > 12, 12 is subtracted from 19, yielding an Excess Density Value of 7. This number is then multiplied by .08 (8%) and by the SP of the unit, resulting in 1.68, which is rounded up to 2. Thus, that unit would attack as if it had 5 SP.

**Damage Report Details:** By default, the game does not display Damage Reports as attacks are executed; i.e., "Low Details" are in effect. To change to Medium Details, select "Details" from the "Options" pop-down menu, then select "Medium Details" from the "Details" pop-out menu.

To change to "High Details", Medium Details must *first* be in effect. Then, when a "Damage Report" box appears during the game, click on the toggle switch in the *upper left hand corner* of the Damage Report box (the small toggle switch with the "o"). When clicked on the button toggles to display an "x", thus indicating "High Details" are displayed. Whenever High Details are toggled on, you must manually close the Damage Report box (by clicking on the "X" button in the *upper right corner*, or by pressing the **Enter** key on the keyboard).

**Direct Fire:** Most combat units attack using Direct Fire, whereby the shooting unit must have the target unit in "Line of Sight" and within its range. A Direct Fire attack must target a specific unit in the target hex (unlike Indirect Fire, which can potentially affect *all* units in the target location). If playing on the 3D map you can right-click directly on the 3D icon you wish to fire at; if in a 2D map mode, you will be given a Target Dialog box when you fire at a hex containing more than one target.

The following combat example assumes "High Details" are "on" (see Damage Report Details, above)...

**Example:** A U.S. M4(105) Medium tank is selected while in Fire Mode. It has 100 AP (enough to fire twice, since its "Fire Cost" is 40). The fire-mode cursor is put over a Japanese Rifle Platoon two hexes away in a Lt. Jungle hex. A small box displaying "12/15" is superimposed over the target hex as the fire-mode cursor roams over that hex. However (if in a 3D view mode), as the cursor is put directly over the 3D icon of the rifle platoon, the box changes to "6 - Rifle Platoon @ 15", indicating the target is a 6-SP Rifle Platoon (Defense Strength of 8) which can be shot at with an Attack Strength of 15. Right-clicking on the 3D icon executes the attack.

The "Damage Report" indicates: "Rifle Platoon; Attack = 15 Defense = 8; Modifier = 70%; Reduced by 1, Disrupted". This informs us that 15 attack factors shot at a target that had a Defense Strength of 8. The 70% indicates that only 70% of the attacker's firepower hit the target due to the light jungle terrain modification of ".7"

(see the *Rising Sun Parameter Data*, available from the Help pop-down menu, for a complete listing of the different terrain and fortification modifiers). The result of "Reduced by 1, Disrupted" indicates the target unit had its strength Reduced by one (from 6 to 5) and is now Disrupted.



### Combat Results

**No effect:** The target unit is unaffected by the attack.

**Retreat (Morale Check):** A unit that fails a Morale Check result is retreated out of its current hex. *Exception:* A gun battery and/or a unit in a Pillbox, Bunker or Cave is Disrupted instead. Each time a unit retreats it is subject to morale loss (see Morale Loss, below). A unit that cannot retreat takes an additional SP loss (which, of course, can still result in the unit's elimination).

**Disrupted:** The target unit is Disrupted, meaning that its Attack Strength and Assault Value are halved, it cannot *initiate* an assault (but can counter-assault), it cannot move *closer* to the nearest enemy unit, and all AP expended for movement are doubled (to a maximum of 65 AP). An additional Disrupted result has no further detrimental effect on an already-Disrupted unit.

**Design Note:** A disrupted unit is one which has been rendered less effective due to being subject to accurate and/or intense enemy fire. A disrupted unit has its efficiency reduced because its soldiers are probably "keeping their heads down", or if an armored unit it might be considered "buttoned up". A disrupted unit cannot fire as accurately because it is "pinned down"—the gunner does not want to risk his neck to get a good shot as he does not want a bullet through his left eye. Instead, he perhaps takes an un-aimed "pot shot". Too, a disrupted unit cannot advance closer to the nearest known enemy unit, but has been known to move closer to a hidden one (if it does not know it's there how can it avoid it?).

**Reduction of Strength Point:** A unit can lose one or more SP due to being attacked; a unit that has its SP reduced to "0" (zero) is eliminated. Each time a unit loses a SP it is subject to morale loss (see Morale Loss, below).

**Elimination:** If an attack results in the loss of all of a unit's SP that unit is eliminated.

**Morale Loss:** Besides the above "reported" combat effects, each time a unit suffers a Strength Point loss due to combat or a Retreat result, there is a 35% chance that its current morale will be reduced by one.

**Note:** A unit that has its **morale** reduced to 0 is eliminated ("hors de combat") regardless of the number of SP it has remaining.



### Morale Recovery

A unit that has suffered a morale loss has its morale value printed in yellow in the Info Box. A Disrupted unit with a reduced morale cannot recover from Disruption until its morale value has been restored to its "nominal" (i.e., full strength) value. To quickly gauge the morale of your units when playing on a 3D map, turn on the On-Map Thermometers (hot key T), then click once on the Morale display box in a friendly unit's Info Box to have the On-Map Thermometers graphically display your units' morale.

At the beginning of each friendly Player Turn a unit whose morale is currently less than its full morale will have its morale increased by one if it passes a morale check. The program rolls a 10-sided die for each such unit; if the die roll is equal to or less than the unit's current morale the morale check is "passed". The presence of a friendly leader in the same hex that "commands" that unit will improve the odds of that unit regaining morale (see Leaders, page 74).

### Disruption Loss

At the beginning of each friendly Player Turn a disrupted unit that begins its Player Turn at *full morale* (i.e., its current morale rating is at maximum) will become undisrupted if it passes a morale check. The program rolls a 10-sided die for each such disrupted unit; if the die roll is equal to or less than the unit's morale its disruption status is removed. The presence of a friendly leader in the same hex that "commands" that unit will improve the odds of that unit passing the morale check and becoming undisrupted (see Leaders, page 74).



## Night Combat

During WWII night attacks were used with increasing frequency—certainly more than in any other major conflict prior to it. This is especially true in the Pacific theater, where the Japanese frequently favored the effects of darkness for masking both infiltration and mass assaults.

A set-piece scenario that takes place at night will be so noted in the introduction to that battle, just prior to the recommended side (Example: “Tenaru, 7km ESE of Lunga Point, Guadalcanal: NIGHT [Best played as Axis]”). The “Visibility” window of Scenario Information display (hot key **I**) also states if Night rules are in effect and the maximum visibility that a Gunflash can be seen.

**Hint:** For a small basic introduction to the Night rules, try the **Bootcamp4** scenario and refer to the copy for that scenario in the Bootcamp.doc file.

During Night scenarios the following rules are in effect:

**Map:** The map is displayed with a darkened landscape. Hexes out of LOS or not reachable (when using the “Show hexes in LOS” or “Show Reachable hexes” features, respectively) are displayed with a dark bluish tint overlay.

**Movement:** Non-foot movement costs are doubled during a Night scenario, even in illuminated areas. Movement by units using foot-type movement is not affected at Night.

**Design Note:** Having the doubled movement cost apply only to non-foot-movement units is, admittedly, a concession to game play. Increasing foot movement costs would force all night scenarios to be longer in duration without any accompanying benefit to play. Players may wish to consider a night Game Turn being longer than a normal, 6-minute day Game Turn.

**Line of Sight & Illuminated Hexes:** The default line of sight during a Night scenario is always **one** hex. However, LOS can be “extended” by a Gunflash and the presence of a Starshell out to the limit of the scenario’s weather condition (see weather chart on page 39). Hexes affected by Starshells, or that contain six or more wrecks, are defined as “illuminated”.

**Combat:** An attack into a hex within night visibility range (normally one hex, but also including an illuminated hex) is performed at full firepower. An attack into a Gunflash hex is performed at halved firepower (attack strength/2) as the firer is considered to be firing at the Gunflash, not at a specific target.

## Gunflashes

When a unit that would be in enemy LOS in a daytime scenario fires from (or suffers a mine attack in) a non-illuminated hex, that hex is marked with a Gunflash. The presence of the gunflash allows the enemy to fire at that hex. (**Exception:** A Gunflash cannot be spotted or direct-fired on at greater than the weather’s visibility limit.) Fire at a Gunflash location is resolved at half firepower (fractions rounded up) if that hex is non-illuminated and is two or more hexes from the firer.

If more than one unit occupies a Gunflash hex, the target unit is chosen *randomly* (assuming the firer can fire at that target hex only due to the presence of a gunflash)

**Exception:** Indirect fire still affects all units in the hex.

**Design Note:** When a unit fires at a Gunflash it is literally firing at the flashes of light—it is assumed the firer cannot see the target(s) in the hex—nor even how many targets are actually in the hex.

The results of an attack vs. a Gunflash hex are always “Unknown effects vs. unknown units”.

A Gunflash is automatically removed at the end of the Player Turn *after the Player Turn* in which it appeared.

## Starshells

In a Night scenario both sides will usually be allotted a number of Starshells. The number allotted to each side, if any, is listed in the Unit List below “Smoke” (see page 25). The number of Starshells available to the phasing side is also displayed in the Status Bar (to the right of the number of Smoke rounds available). If Fog of War is in effect, the number of starshells available for the opposing side is shown as a “?”.

A unit with an attack factor  $> 0$  and at least 20 AP’s can attempt to fire a Starshell during its Player Turn. Each attempt to fire a starshell costs 20 AP’s, regardless of success. Each attempt to fire a Starshell has a 40% chance of success (this is decreased to 20% if the unit attempting to fire the Starshell is disrupted). Additionally, if a Leader is selected with a friendly unit trying to fire a Starshell, he will improve that unit’s chance of successfully firing a starshell (a number equal to five times the Leader’s Command Rating is added to the base success rate). If used thusly, the Leader also has 20 AP’s deducted for each Starshell attempt he is used for (whether successful or not). A Leader by himself cannot fire a starshell; he must be selected with an eligible friendly unit.

A Starshell can be fired by selecting an eligible unit, ensuring that the program is in **Fire Mode** and, while depressing the **Alt** and **Shift** keys, right-clicking in the target hex.

The range from the firing unit that a Starshell can be fired is two hexes—unless the firing unit is *using indirect fire*, in which case it equals half (fractions rounded up) of the unit’s maximum range. Also, a Starshell fired from an Indirect Fire unit is not delayed a Game Turn (unlike normal fire from such a unit). Once fired, the Starshell has a 40% chance of landing in the intended target hex, otherwise it will land in one of the six hexes adjacent to the intended target hex.

A Starshell illuminates its hex and the six adjacent hexes. An illuminated hex is considered to be “in the LOS” of all units that would have a line of sight to it in a daytime scenario. (Exception: An illuminated hex cannot be spotted or direct-fired on beyond the scenario’s visibility limit.) Illuminated hexes do not display the night-darkened pattern. Note that a just-placed Starshell will not automatically reveal hidden enemy units in its illumination zone. Instead, it sheds enough light such that any unit that enters a location in its illumination zone is revealed if it is in line of sight of an enemy unit (taking into consideration the maximum visibility due to current weather conditions set for that scenario).

A Starshell is removed at the start of the friendly Player Turn following the Game Turn in which it was placed.

**Design Note:** The inability to have complete control over the firing of Starshells, and the chance of “drift” of fired Starshells, is intended to help simulate the uncertainties of night combat. When a Starshell firing attempt fails, don’t think of it as a flare gun “misfiring”, but instead simply that the concerned unit did not know to fire. Similarly, when a Starshell lands in an unintended hex, it does not mean that it fired incorrectly, but that the firing unit thought it heard noises or saw movement in that area. Lastly, each Starshell actually represents several Starshells fired from hand-held flare pistols (if fired from a “ground” unit) or one or more illumination rounds (from a gun battery).



## Fortifications

There are several different types of “fortifications”, each with different effects on play.

 **Improved Positions:** Any unit in a hex containing an Improved Position (IP) gains a defensive benefit, in that the firepower of all attacking units is modified by .75, as well as the normal terrain modifier of that hex, if such would apply to that attack. This is the only fortification type that can be “constructed” during play (see Digging In, page 58).

 **Trench:** The firepower of a unit attacking a target in a trench location is modified by .56, as well as the normal terrain modifier of that hex, if such would apply to that attack. Only non-vehicular units gain a benefit from the protective modifiers of a trench. Most wheeled units must pay 65 AP to enter a trench location. Other units also pay an additional AP penalty to enter a trench location (the additional AP depends on the unit type).



**Bunker:** A unit eligible to receive the defensive benefits of a bunker has 10 added to its Defense factor (5 if defending in an assault), as well as the normal terrain modifier of that hex, if such would apply to that attack. Only non-vehicular units benefit from the protective modifiers of a bunker. A unit gaining protection from a bunker is immune from the “retreat” combat result; it will instead become disrupted.



**Pillbox:** Similar to Bunker, except that a unit receiving the benefit of a Pillbox can only be attacked as if it were a *hard* target (this to simulate a concrete emplacement). Only non-vehicular units gain a benefit from the protective modifiers of a pillbox. A unit gaining protection from a pillbox is immune from the “retreat” combat result; it will instead become disrupted. Most vehicular units *cannot assault* a hex that contains a Pillbox, however see the Design Note on page 46.



**Minefield:** Whenever a non-engineer unit enters a Minefield hex a mine attack is immediately carried out against it. Minefields come in three strengths: 1, 2 and 3, which represent the strengths corresponding to the “odds” line of the Combat Results Table that the attack is resolved on; i.e., a “3” Minefield attack is executed on the 3:1 line. Mines can be removed during play by a non-Disrupted engineer unit that begins its Player Turn in the Minefield hex. Mined hexes provide no defensive benefit to any unit occupying such a hex.



**Block:** A hex containing a “Block” represents an impediment to movement (roadblock, barbed wire, felled trees). Each unit that enters a such a hex must expend 65 APs. Blocked hexes provide no defensive benefit to any units. A “Block” can be removed during play by a non-Disrupted Engineer unit that begins its Player Turn in the hex containing the “Block”.



**Beach Obstacle:** This type of fortification only appears in shallow water hexes. Essentially, it is a “Minefield” (1:1 strength) that only affects units that use only boat-type movement (i.e., boats or landing craft, but not fully-tracked amphibians). The presence of a Beach Obstacle in a shallow water hex does not increase the AP needed to enter that location.



**Cave:** The use of this special fortification type, unique to *Rising Sun*, is limited to Japanese units that use “foot” type movement. A unit gaining protection from a Cave is immune from the “retreat” combat result; it will instead lose an additional SP. For detailed information about Caves see page 76.

**Design Note:** *Rising Sun*—with its Bunker, Pillbox and Cave complexes—gives a different battlefield experience than that of other games in the Campaign Series. Defensive positions composed of Bunkers and/or Pillboxes are not likely to fall easily. You cannot realistically expect to dig out the defenders on your first try (i.e., in one six minute Game Turn). A plentiful supply of guts, bayonets, and patience—with a certain measure of good luck added in—are required to be successful in “bunker busting”. In game terms, this translates into (1) time to reduce the strength of the defenders and to disrupt them, (2) multiple assaults (per turn if possible) with good odds, and finally, (3) a good “die roll”. It is sometimes better to attempt two assaults at 2-to-1 odds on a stubborn position than it is to try one assault at 4-to-1 odds.

**Hint:** For a small basic introduction to “bunker busting”, try the *Bootcamp3* scenario while referring to the *Bootcamp.doc* file.



**Digging In:** Additional Improved Positions can be constructed during play by "Digging In". Only a unit displaying a small "shovel" icon near the bottom of the icon bar on the left side of its Info Box is capable of Digging In (generally, this includes most non-HQ infantry-type units, but not vehicles or guns).

To have an eligible unit begin Digging In, select an eligible unit, then press the "Digging In" Tool Bar button. Giving orders for a unit to "dig in" can cause Opportunity Fire.

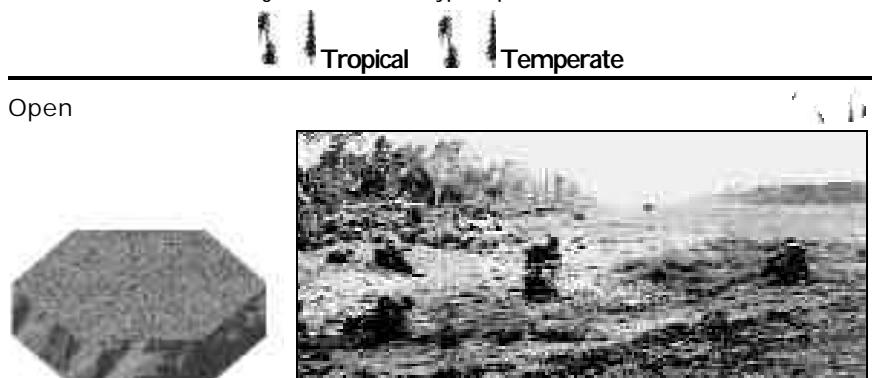
When a unit is currently engaged in Digging In, the small shovel icon moves toward the top of that unit's icon bar of its Info Box. At the beginning of each friendly Player Turn there is a 10% chance that a unit will construct an Improved Position if it begins that friendly Player Turn Digging In (Exception: an engineer unit has a 20% chance). If a unit that is Digging In conducts an attack, its Attack Strength is halved (fractions rounded down, to a minimum of one).



Terrain Types of Rising Sun

The battles included in *Rising Sun* cover a large portion of the Pacific Theater of World War II, from the tropical jungles of Burma, New Guinea and the small islands of the SW Pacific to the more temperate shores of Japan and even Alaska's Aleutian Islands. Therefore *Rising Sun* includes terrain for two distinct regions, "Tropical" and "Temperate". While most of the different terrain types can be found in both regions, a few are region-specific. Also, while some terrain types (such as villages and cities) are present in both regions, the "3D" map art has been carefully modeled to represent terrain typical of that region.

The following terrain section shows a representative picture of each terrain type, a representative 3D map hex of that terrain, a brief description of the terrain, as well as the terrain's combat modifier, concealment value and other special information. The "TEM" given is the amount of the otherwise-applicable attack strength that is allowed to "hit" a target occupying such terrain. If two or more apply, they all have an effect; e.g., a unit attacking a target in a forest hex behind a hedge would use .72 (.8 x .9) or 72% of its "normal" attack strength. Additionally, one or more symbols displayed above the terrain illustration denote what region each terrain type is present in:



Open terrain is open ground that provides little or no cover. Non-armored units (only) in open terrain have their morale reduced by one when fired upon.

**TEM: 1.0   Concealment: 0   Morale Mod: -1   Height: 0m**

## Beach



Beach terrain represents a large expanse of flat, open, sandy terrain along a coast line suitable for conducting amphibious operations.

**TEM: 1.0   Concealment: +1   Morale Mod: 0   Height: 0m**

## Field



Fields come in three varieties: "in season", "plowed" or "out of season". If in season, a field's tall crops serve to block some lines of sight. A "plowed" field provides no cover (and is thus like open ground) but is a slight impediment to some units' movement. "Out of Season" fields are identical to "clear" terrain for all purposes.

**TEM: 0.95   Concealment: -1   Morale Mod: 0   Height: 2m**

## Kunai



Kunai represents various varieties of tall tropical grass (also called "elephant grass") that could at times grow to a height of 6 to 10 feet. Kunai is only found in the Tropical region.

**TEM: 0.9   Concealment: -1   Morale Mod: 0   Height: 2m**

## Shallow Water



This terrain represents water (most commonly found along a shore line) that is shallow enough to allow entry of vehicles and foot traffic. Guns are not allowed to fire from shallow water; infantry units firing from shallow water have their SP number halved (fractions rounded up). A unit in shallow water will not retreat (but will instead take an additional casualty) unless it can retreat into a land hex.

**TEM: 1.0   Concealment: +3   Morale Mod: -1   Height: 0m**

## Water



Water represents an expanse of water, such as a lake, river, canal or sea, deep enough to prohibit entry by normal ground units without some form of conveyance (such as rafts, boats or some type of bridge). Landing craft and most LVT's may fire from (deep) water.

**TEM: 1.0   Concealment: +3   Morale Mod: -1   Height: 0m**

## Orchard



A cluster of cultivated fruit trees. Orchard terrain can also be used to represent an area of light woods. In the tropical region orchards are represented as groves of palm trees and due to their close proximity are considered to block LOS.

**TEM: 0.9   Concealment: -1   Morale Mod: 0   Height: 8m**

## Palms



This terrain type represents the thinly-spaced palm trees frequently found on islands in the SW Pacific, as well as the mainland. Palms are considered to have a "height" of "0" only so that **they do not block LOS**.

**TEM: 0.95** **Concealment: 0** **Morale Mod: 0** **Height: 0m**

## Forest



This represents an expanse of woods, providing good cover and concealment benefits.

**TEM: 0.8** **Concealment: -3** **Morale Mod: +1** **Height: 25m**

## Light Jungle



Light jungle represents a large expanse of tropical forest providing good cover and concealment benefits.

**TEM: 0.7** **Concealment: -4** **Morale Mod: +1** **Height: 25m**

## Dense Jungle



Dense jungle represents a large expanse of virgin jungle providing excellent cover and concealment. Only units using *foot movement* can enter a dense jungle hex (Exception: horse/wagon may enter dense jungle along a path; all other unit types can enter a dense jungle hex only if entering via road or railroad). No LOS exists between an aircraft and a unit in dense jungle. AA and indirect fire from dense jungle locations are not allowed.

**TEM: 0.6** **Concealment: -4** **Morale Mod: +2** **Height: 25m**

## Swamp



An inundated, marshy forest area, quite common in much of southeast Asia. Vehicular entry is prohibited unless via some type of road.

**TEM: 0.9** **Concealment: -3** **Morale Mod: 0** **Height: 25m**

## Marsh



An area of low-lying wet land with a small amount of cover. Vehicular entry is prohibited unless via some type of road.

**TEM: 0.95** **Concealment: -2** **Morale Mod: -1** **Height: 3m**

## Rice Paddy (dry)



Clusters of small plots for cultivating rice are quite common in SE Asia and on the larger Pacific islands. The paddies would frequently be surrounded by raised embankments which could be used for access by foot—but are generally not wide enough for most vehicles.

**TEM: 0.9** **Concealment: 0** **Morale Mod: 0** **Height: 0m**

## Flooded Paddy



This represents an inundated rice paddy. With the fields being flooded, most vehicular entry is prohibited.

**TEM: 0.85** **Concealment: -1** **Morale Mod: -1** **Height: 0m**

## Rough



Rough terrain is an area with large, craggy boulders and small undergrowth, such that vehicles cannot enter the terrain unless via some type of road.

**TEM: 0.8** **Concealment: -2** **Morale Mod: 0** **Height: 2m**

## Village



A rural settlement. In the western Pacific most village structures are constructed from local resources, thus providing less protection than stone structures more common in Europe.

**TEM: 0.8** **Concealment: -3** **Morale Mod: +2** **Height: 10m**

## Suburb



This type of terrain represents a residential community of tightly spaced dwellings of wooden construction, usually on the outskirt of a city. A road is considered to enter a suburb from all hexsides.

**TEM: 0.75** **Concealment: -3** **Morale Mod: +2** **Height: 10m**

## City



City terrain represents an urban area of large, brick and concrete buildings providing very good defensive benefits. A road is considered to enter a city from all hexsides.

**TEM: 0.65** **Concealment: -3** **Morale Mod: +3** **Height: 25m**

## Industrial



A large industrial complex providing very good defensive benefits.

**TEM:** 0.6   **Concealment:** -3   **Morale Mod:** +4   **Height:** 20m

## Special Building



This represents a specific large building and provides very good cover for non-vehicular units. While vehicles can enter a Special Building hex, they are considered to be outside the structure and thus gain no defensive benefits from it.

**TEM:** 0.65   **Concealment:** -3   **Morale Mod:** +3   **Height:** 15m

## Rubble



City, suburb, factory and village terrain may also exist as rubble. The terrain, concealment and morale modifiers remain the same as the original terrain. Rubbled hexes are not created during a game, but are defined as such during scenario creation.

**TEM:** \*   **Concealment:** \*   **Morale Mod:** \*   **Height:** 50%\*\*

\* Depends on the previous terrain type; \*\* Rubble height is 50% less than original terrain type.

## Hexside Terrain features in Rising Sun include...

## Minor River



Minor river hexsides represent bodies of water that are deep, or have steep enough embankments, to prohibit movement over them unless via a bridge. Note that the map art for minor rivers is a *darker* blue than the map art for streams.

**TEM:** -   **Concealment:** 0

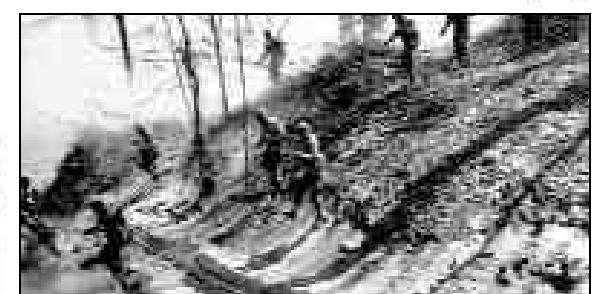
## Stream



A stream represents a small body of running water that hinders movement of most units, but is not deep or wide enough to prohibit movement over it without a bridge. Note that the map art for streams is a *lighter* blue than the corresponding art for minor rivers.

**TEM:** -   **Concealment:** 0

## Gully



A small, dry ravine that acts as an impediment to movement.

**TEM:** -   **Concealment:** 0

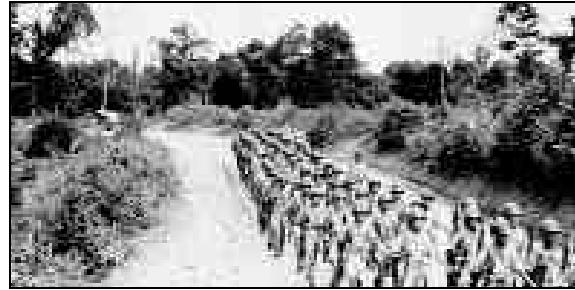
## Paved Road



This represents a road with an improved (paved) surface—the best way for most units to travel fast.

**TEM: -** **Concealment: 0**

## Unpaved Road



This represents a "secondary" road with an unimproved (usually dirt) surface. In the muddy season these are usually best avoided.

**TEM: -** **Concealment: 0**

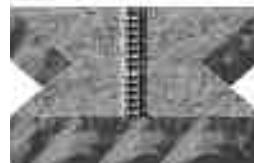
## Path



This represents a cart path or wide foot path. An ideal way for infantry to move through wooded terrain. The muddy season can also play havoc with these features.

**TEM: -** **Concealment: 0**

## Railroad



While traveling along a railroad can be quicker than blazing a new trail through woods, it can still be a slow and bumpy ride for vehicles.

**TEM: -** **Concealment: 0**

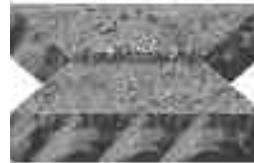
## High (fortified) Wall



This represents a very thick wall (usually poured concrete). High Wall hexsides cannot be crossed by any unit unless that high wall hexside has been breached by Engineers (see page 49).

**TEM: -** **Concealment: 0**

## Low Wall



This represents a low stone wall—sufficient to give cover but not high enough to have an effect on line of sight. Wheeled units cannot cross low walls (Exception: motorized leaders).

**TEM: 0.8** **Concealment: +2**

## Hedge



This represents a low hedge—sufficient to give cover but not sufficiently high or thick enough to have any effect on line of sight.

**TEM:** 0.9   **Concealment:** +2

## Embankment



An abrupt rise in the ground, sufficient to provide good cover. While all units can cross an embankment, there is an additional cost due to the steep slope.

**TEM:** 0.8   **Concealment:** +2

## Escarpment



Similar to a cliff, but with less-steep and very eroded slopes. Vehicles may not cross an escarpment hexside unless moving along a road.

**TEM:** –   **Concealment:** 0   **Special:** Vehicles cannot cross.

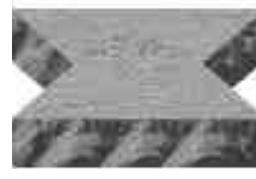
## Cliff



A high, steep face of rock, impassable to all units.

**TEM:** –   **Concealment:** 0   **Special:** No units may cross

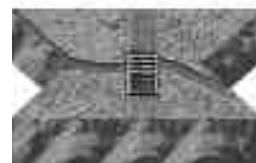
## Reef



In the tropical waters of the SW Pacific many of the smaller islands are partially or wholly surrounded by coral reefs that come up almost to water level. Landing craft (and other units that use boat-type movement) cannot cross a reef hexside, though fully-tracked amphibians and DD-tanks can.

**TEM:** –   **Concealment:** 0   **Special:** Boats/LC may not cross

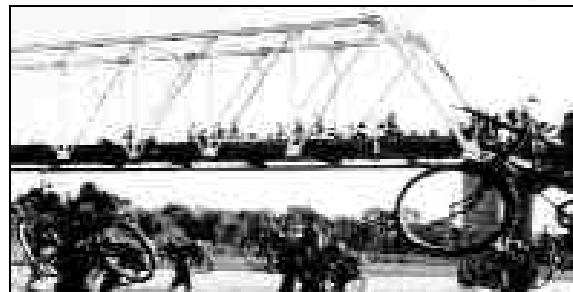
## Heavy Bridge



This full hex or hexside feature represents a bridge that is sturdy enough to carry all types of traffic, including heavy tanks. A full-hex bridge has a stacking limit of 12 SP.

**TEM:** –   **Concealment:** 0

## Medium Bridge



This hexside-only bridge is strong enough for trucks and light tanks, but not sturdy enough for medium or heavy tanks to safely cross.

TEM: - Concealment: 0

## Light Bridge



This hexside-only bridge represents a small bridge that only the lightest vehicles can cross.

TEM: - Concealment: 0

## Ford



A shallow place in a minor river or stream.

TEM: - Concealment: 0

## Pontoon Bridge



A pontoon bridge can be light, medium or heavy, depending on the strength set for it in the scenario editor. The capacity of a "heavy pontoon bridge" is the same as the capacity of a "heavy (non-pontoon) bridge", etc. A pontoon bridge has a stacking limit of 12 SP.

TEM: - Concealment: 0



## Concealment Values &amp; Fog of War

If "Fog of War" is on, enemy units are not automatically revealed when one or more of "your" friendly units has a line of sight to that enemy unit's location. Each unit in the game has a Concealment value ("UC#" in the formula below), and each full-hex terrain type has a Concealment value ("TC#"), that the program utilizes when determining whether or not that unit has been "spotted" by the enemy. The program uses the following calculation (in the formula, "FRD" means "fractions rounded down"):

$$(UC\# + SP \text{ of unit [halved, FRD if non-vehicular]} + TC\#) - (\text{modified range}/2 \text{ [FRD]})$$

The "modified range" is based on the hexside terrain (if any) being viewed "through" (i.e., if the line of sight from the viewing unit crosses a hexside terrain type as it enters the hex of the unit being viewed). The hexside "range modifier", if any, is added to the range (in effect *increasing* the range to the unit being viewed). The number determined by the formula is then "bounded" by 0 and 8 (in other words, it cannot be lower than "0" or

greater than "8"). The program then generates a random number from 0 to 9 (inclusive); if that random number is  $\leq$  the final number from the formula the affected unit becomes spotted (i.e., visible on the game map).

When a unit moves or fires it is always revealed if it is in LOS of at least one enemy unit (**Exception:** Japanese unit using cave movement; see page 76). In order to become unspotted, a unit must regain its concealment status by beginning its friendly Player Turn out of the line of sight of all enemy units.



### Leaders

 A Leader can perform several crucial functions. Not all organizations will have a Leader present on the map; consider any Leader that is present to be a "special" personality. To locate the units subordinate to a Leader (i.e., under his command), select that Leader and press the "Highlight Organization" Tool Bar button; all units subordinate to him will be highlighted.

The higher the Command and Leadership Ratings of a Leader, the more valuable that Leader is. These values are displayed in the Leader's Info Box when he is selected.

A Leader in the same hex as a firing unit that is *subordinate to him* will automatically modify the Attack Strength of that attacking unit equal to his Command Rating (listed in the Leader's Info Box), *provided* the Leader has AP greater than or equal to the Fire Cost of the *firing* unit. A Leader used thusly to "direct" fire automatically expends AP equal to the AP spent by the firing unit. Only the Leader with the highest command rating participating in an assault modifies his side by his Command Rating.

A Leader will modify the morale of each unit *under his command* (i.e., subordinate to him) that occupies his hex. This will be noted by the unit's morale being **red** in the Info Box. The morale of the unit will be equal to the morale of the Leader if the Leader's morale is higher than the unit's. If the Leader's morale value is less than or equal to the unit's, the unit's morale is increased by one. Since a Leader modifies the morale of each unit under his command in his hex, the chance of a such a unit regaining morale or losing Disruption is increased, as these are based on passing morale checks.

Each time a hex containing a Leader is attacked there is a 2% chance he will become a casualty (**Exception:** If the Leader is the *only* unit in the hex the casualty chance is 10%; see also Leader Vulnerability in the Japanese Special Rules, below.). A Leader cannot be singled out as the target of an attack unless he is the *only* occupant of a hex. Therefore, it is advisable to keep your Leaders stacked with friendly unit(s) of his command.

**Motorized Leader Exception:** Even though a motorized leader uses "wheeled" movement type, the program allows this unit (unlike other wheeled units) to enter rubble hexes and cross reef hexsides. In this way, a motorized leader can better "keep up" with half- and fully-tracked units better.



### Japanese Special Rules

Japanese units have several special capabilities in the *Rising Sun* game system, not least among them the ability to utilize caves and to conduct a Banzai Attack. The following special rules apply only to Japanese units.

#### Leader Vulnerability

The raw courage and blind obedience of the Japanese soldier is seldom debated; the typical Japanese officer was, if anything, even braver, and was rarely one to "lead from the rear". Like the samurai warrior of old, each Japanese officer was equipped with a sword, frequently a family heirloom, and brandishing this blade he would direct his troops. Allied soldiers were quick to pick up on this, and Japanese officers with their swords soon became marked men. For this reason, a Japanese leader is twice as likely to become a casualty than a leader of another nationality (thus, 4% chance if stacked with a friendly unit, or 20% chance if alone in a hex).

#### Bicycle Capable

Unlike most nationalities which had specialized bicycle infantry units, *all* Japanese rifle, engineer, MG and ATR units are capable of riding bicycles.



### Caves

 A cave is a *fortification*—not a terrain—type. A Cave *fortification* can be occupied and entered during play **only** by Japanese units that use *foot* movement; i.e., a non-Japanese unit, or a Japanese unit that does *not* use foot movement, can enter a *location* containing a cave, but it will not gain any *benefit* from the Cave, since such a unit is never considered to be *in* the Cave.

A Japanese unit *in* a Cave receives a substantial reduction in incoming enemy firepower. Indirect fire vs. a Cave hex has no effect on the Cave's occupants (Exception: smoke effects). A unit *in* a Cave is immune to "retreat" combat results; it instead takes an additional SP loss.

Caves that are set up within **three** hexes of each other can be used for hidden movement. A Japanese unit *in* a Cave can be moved instantly to another Cave within three hexes of the Cave it starts in at a cost of 100 APs (thus, a unit must have 100 AP in order to use a Cave's hidden movement benefit). To move a unit in a Cave to another Cave within three hexes, select the eligible unit and *right-click* on the destination Cave hex while the program is in Move mode. The unit remains hidden from the Allied side when it moves, as do the Caves entered/exited.

A Cave remains hidden from the Allied (but *never* from Axis) side until an Allied unit enters the Cave hex or a Japanese unit *in* the Cave fires while in the line of sight of an enemy unit. See pages 56-57 for more information on other types of fortifications.

### Banzai Attack

Mention warfare in the South Pacific during WWII, and the first thing that comes to mind may well be a throng of wildly charging Japanese soldiers led by a sword-waving leader, all shouting "Banzai!". In *Rising Sun*, Japanese infantry units (and any Japanese leader type) are allowed, under certain circumstances, to conduct a Banzai Attack.

**To Initiate a Banzai Attack:** Select a Japanese leader and press the **B** hot key. The selected leader immediately performs a Banzai Attack morale check. Other Japanese units that are allowed to Banzai Attack with that leader automatically become highlighted (to toggle off the units highlighted for Banzai Attack, simply highlight another unit type by selecting **Highlight** from the Display pop-down menu). The Banzai Attack bonuses and penalties last for the duration of the current AxisPlayerTurn in which the Banzai attack is initiated and during the following Allied Player Turn (Exception: all units that used Banzai Attack remain

fatigued for the duration of the current Game Turn and all of the next Game Turn).

**Banzai Attack Morale Check:** To be able to initiate a Banzai Attack, the Japanese leader must be non-fatigued and currently have at least 20 AP. He must then pass "morale check" (which occurs automatically when you press the **B** key). A maximum of one Banzai Attack morale check may be attempted per leader per turn. If successful, all eligible units belonging to that leader's organization within a radius equal to his command rating will become highlighted, and thus available to conduct a Banzai Attack. (see below for eligible & ineligible units). You can then move, attack and assault with the units normally (i.e., there is no need to press or hold down the Alt or any other key as this is not an "organizational" move). If a Banzai Attack morale check is successful, a message stating "BANZA! Morale check successful!" is displayed; if unsuccessful, a message in the Status Bar will report "Leader fails morale check".

**Eligible Units:** The following units are eligible to conduct a Banzai Attack:

- Must be Japanese
- Must be capable of using "foot" type movement
- Must have an Assault Value > 0 (Exception: leader)
- Any leader type (i.e., foot or motorized)

**Ineligible Units:** The following units are ineligible to conduct a Banzai Attack:

- Disrupted
- Fatigued
- Any unit currently with less than 20 AP
- Any unit that is currently a rider or passenger
- Fixed units
- Any unit capable of conducting an Indirect Fire attack

**Special Effects & Penalties of a Banzai Attack:** The following special conditions apply to units conducting a Banzai Attack:

**Assault Value Increase:** The Assault Value of a unit conducting a Banzai Attack is tripled (Note: After being halved for fatigue the Assault Value is then tripled for Banzai Attack).

**Terrain Cost of Assaulted hex Nullified:** The AP cost to enter the defender's terrain in order to assault is 0 (but the 20 AP to assault is still assessed).

**Automatic Fatigue:** Each unit conducting a Banzai Attack is automatically fatigued (it is considered to be using "double time" movement).

**Retreat Results Ignored:** A "retreat" result against a unit conducting a Banzai Attack is ignored; the unit instead takes an additional SP loss.

**Terrain Morale Effects Nullified:** Terrain effects on morale (both negative and positive) are not applicable vs. units conducting a Banzai Attack.

**Terrain Effects Modifier (TEM) Change:** A unit conducting a Banzai Attack has the TEM of the hex it occupies increased by ".1" when attacked; e.g., a ".8" modifier would become .9, and a .9 TEM would become 1.0 (this in effect lessens the protection of the location to simulate the fact that the attacking units are not using the cover of the terrain). This lessened TEM is in effect during the Japanese Player Turn in which Banzai Attacking unit is moving as well as the following Allied Player Turn.

**Hint:** For a small basic introduction to the Banzai Attack rules, try the **Bootcamp4** scenario and refer to the copy for that scenario in the **Bootcamp.doc** file.



## HQ and Supply

At the start of each friendly Player Turn, a supply check is made for each friendly unit that fired in the preceding Game Turn. This check is made to *maintain* supply if the unit is not currently low on supply. If the unit is currently low on supply this check is an attempt to *regain* supply.

**Maintaining Supply:** A unit attempting to maintain supply does so through its "parent" HQ. If a platoon's "parent" (e.g., battalion) HQ is not on the map, the program will search the map for other HQ commanding that unit; e.g., the unit's regimental or divisional HQ. The program measures the range that the unit is from its parent HQ, and uses this range to determine a base probability. It then makes a percentile die roll and supply is maintained if that die roll is less than or equal to that base probability. Basically, the closer the unit is to its HQ the better its chance of maintaining supply. (If in the same hex as its HQ—and that HQ is "in supply"—supply will be maintained automatically.) If the unit's "parent" HQ is not currently on the map, it uses that HQ's "parent" HQ instead.

To check the supply range of an HQ, select it and press the **W** hot key. Any unit in a shaded hex has less than 50% chance of maintaining supply through the selected HQ. As a unit's range from its HQ increases, the chance of it maintaining supply decreases, but never drops to zero due to range alone. At the ranges listed below, a unit has a 50% chance of maintaining supply via its HQ.

| HQ Type       | Range in Hexes |
|---------------|----------------|
| Army          | unlimited      |
| Corps HQ:     | 90             |
| Division HQ:  | 30             |
| Brigade HQ:   | 15             |
| Regiment HQ:  | 15             |
| Battalion HQ: | 8              |

If a unit fails to maintain supply via its HQ, the program *then* checks for supply again, but this time using the friendly side's base ammo level (turn on the Unit List to display the base

ammo level; hot key **U**). When checking to maintain supply using the base ammo level, a "percentile" (0-99) die roll is made and compared to that side's ammo level. A die roll equal to or less than this ammo level means that the unit maintains supply. If the die roll is greater than the ammo level, that unit will be Low on Supply for the current Game Turn.

**HQs:** An HQ can only provide supply to units under its command "umbrella". In addition, an HQ is never able to provide supply on any turn following a Player Turn in which it *changed its location* (this simulates the HQ having to set up and re-establish communications). Besides that, each HQ (exception: Army) makes a supply check at the beginning of each friendly Player Turn. Like a normal combat unit, the HQ *first* checks supply based on the distance from *its* "parent" HQ, however, if that supply check fails it then checks using the base ammo level listed for *its* side.

**Indirect Fire units:** Maintaining supply differs for Indirect Fire units (whether off-board or not) in that they check supply *only* against their side's base ammo level (as described above). If the battery fails to maintain supply it will be unable to fire during the current turn.

**Regaining Supply:** At the start of each friendly Player Turn, a supply check is made for each non-isolated friendly unit that is currently Low on Supply. The procedure is the same as for maintaining supply, except that the base ammo level is not used (i.e., supply can be regained only via a friendly HQ as described above). There is only one exception: Indirect Fire units check to regain supply *only* using their side's base ammo level. If there is no "higher level" HQ on the map for a unit it will be unable to regain supply.

**Effects of being Low on Supply:** A combat unit that attacks *using Direct Fire* will only attack a number of times equal to its Strength Points divided by two, fractions rounded up (keep in mind that such a unit is normally allowed a number of attacks equal to the number of Strength Points it has). A Low-on-Supply artillery (indirect fire) unit cannot attack (this actually represents that battery not receiving proper fire orders, or a breakdown in communications, or its being used to support other units in a nearby battle). A Low-on-Supply HQ is unable to provide supply to other units under its command. Note that units are never *out of supply*, a unit that is Low on Supply can still attack, albeit at reduced effectiveness (**Exception:** Indirect Fire units and HQ report as "unavailable"). Any Low-on-Supply unit that assaults does so at 3/4 effectiveness.

 A unit that is Low on Supply is indicated by a "hollow" bullet icon near the top of the icon bar along the left side of the Info List. To highlight all friendly units that are Low on Supply, from the "Display" pop-down menu select "Highlight" then "Units/HQ Low on Supply". All affected units will be highlighted. Depending on the map size, you may want to zoom out to locate all the affected units.

**Design Note:** A unit that is "Low on Supply" actually represents a unit that is having to *conserve its ammo*—sometimes because communications have broken down (perhaps a non-artillery that has "strayed too far" from its HQ?) and the unit is unsure of its current status or even its own whereabouts. Perhaps the unit is simply confused due to the stress of battle, or actually is hard-pressed and the order has been issued to "make every bullet" count.



## How to Win

Victory in a standard (i.e., *non-campaign*) scenario is determined by the number of Victory Points (VP) your side has amassed at the end of the scenario. Victory Points are scored in three basic ways:

**1) Control of Objectives:** Certain hexes on the map are deemed important enough that the side that controls them at scenario end gains extra Victory Points or denies those Victory Points to his opponent. Only the player designated as being the "First Side" (generally, but not always, the attacking side) gains Victory Points by controlling an objective—and only at the end of the scenario. The "Second Side" (also the side moving second in a Game Turn) simply gains a benefit of controlling objectives by denying those VP to his opponent.

Each on-map objective hex is designated by a special marker (this varies, depending on map view). On the 3D map views objectives are marked by rectangular "plaques"; on the 2D map views objective hexes are marked by oval or circular symbols. Regardless of the map view the objectives are always color-coded to the current controlling side (e.g., gold for Japanese, tan for United Kingdom, green for U.S., etc.). Furthermore, on all views but the 2D zoom-out the objective markers also list the Victory Point value of that objective.



Note that objective markers are "on" by default. To toggle them off or on, press the **O** hot key. To quickly review the objective hexes in a scenario, select "Objectives..." from the "Status" pop-down menu (you might find it beneficial to first switch to the 2D normal or 2D zoom-out map mode before doing this). Clicking on an objective listed in the dialog will scroll the map to that objective.

At the start of a scenario each *non-exit* objective is controlled by one side or the other (most objectives are usually controlled by the defending side). Control of an objective (*Exception: "exit objectives" can never be "controlled"*) is awarded to the last side to occupy that hex with a combat unit (one capable of direct or indirect fire, even if such a unit is currently a passenger or rider). Leaders and unloaded transport units cannot claim control of an objective.

**2) Elimination of enemy strength points:** Victory Points are scored for each strength point of an enemy unit eliminated (depending on the VP value of that SP). To view the current number of VPs scored due to elimination of enemy strength points, select "Victory..." from the "Status" pop-down menu. The number in the "Total [side] Point Loss" window is the number of VPs scored in this manner. For a more precise breakdown of the exact type of losses inflicted, and their point value, select "Strength..." from the "Status" pop-down menu. The windows on the right side of this dialog list the number and type of each strength point eliminated (and, in parentheses, the VP value of each such SP).

**Example:** The right window of the Strength Dialog might contain "5 [3VP]Type 94 Tankettes", which would indicate that five strength points of Type 94 Tankettes have been eliminated, each worth 3 VP, for a total VP gain for the Allies of 15 VP.

To find the VP value of the SP of a unit, select that unit and press the **F2** key to access the Unit Handbook (keep in mind that this VP value is per strength point, not the total VP value of the unit).

**3) Exit Objectives:** An objective *initially listing a value of "0"* is an "exit objective" for the side corresponding to the color of the objective. Each unit of that side exited from such an objective is worth VPs to that side. To exit a unit from the map (whether from an objective hex or not) move the unit into the map edge hex, select the unit, then (whether from an objective hex or not) move the unit into the map edge hex, and press the "Remove Units" toolbar button (or select the unit, then select "Remove From Map" from the "Units" pop-down menu). As units are exited off an exit objective the current number of VPs exited from that objective are immediately tallied and reflected by the new number shown on that objective. (*Note: If a unit is removed from the map edge hex that is not an exit objective no VPs are awarded, but neither does the exiting side lose VPs for such a removed unit; this is a way to deny VPs to your enemy if the unit has no recourse but to exit.*) A removed unit cannot be reentered during that scenario.



### Victory Conditions

The objectives' values, when added to the casualties inflicted in the scenario, determine the level of victory for each army. (Exception: Victory in a Dynamic Campaign Game scenario is determined differently.)

The overall victory conditions apply only to the First Side; i.e., the side that moves first in each Game Turn. The First Side has its objective points added to enemy point losses (i.e., casualty VP) then subtracts the point loss for friendly casualty VP, to determine the total number of VPs. To check the current level of victory in a non-campaign game scenario, select "Victory" from the Status pop-down menu.

A scenario does not end when one side achieves a Major Victory (or Major Defeat); the level of victory may change during the course of play as casualties occur and Objectives change hands. Only the level that exists at the *end* of the scenario applies for determining the winner.

Any of five levels of "victory" are possible for the First Side:

A **Major Defeat** is declared if the point total is less than or equal to the total listed for "Major Defeat" in the Victory Dialog.

A **Minor Defeat** is declared if the point total is greater than the total listed for "Major Defeat", but is less than or equal to the total listed for "Minor Defeat" in the Victory Dialog.

A **Draw** is declared if the point total is greater than the total listed for "Minor Defeat", but is also less than the total listed for "Minor Victory" in the Victory Dialog.

A **Minor Victory** is declared if the point total is greater than or equal to the total listed for "Minor Victory", but is less than the total listed for "Major Victory" in the Victory Dialog.

A **Major Victory** is declared if the point total is greater than or equal to the total listed for "Major Victory" in the Victory Dialog.



### Optional Rules

Some Optional Rules are available to add variety to game play. Once the game begins, the player can select the rules at the A/I selection screen. Once a scenario has begun the Optional Rules in effect for that scenario can not be changed.

**Indirect Fire by the Map** allows you to target Indirect Fire on hexes that are not in the Line of Sight of units on your side. Such fire is likely to drift into another hex. Drifting can be up to two hexes from the originally plotted hex.

**Extreme Fog Of War** further modifies the Fog of War effects. Names of enemy units are hidden. The unit's Strength is also hidden, unless the unit is in "open" terrain. Furthermore, assault odds will be unavailable.

**Command Control:** Under this rule, the HQ supply "ranges" are varied depending on the year and the nationality. Each nationality has a built in modifier that modifies the base "50% range" of each HQ. For example: In 1943 each U.K./Commonwealth HQ has a 110% (1.1) modifier that is applied to modify the base range of each HQ (as seen in *Rising Sun's Pdata.hlp* file). Thus, a battalion HQ, that normally has a 50% range of "8", has that multiplied by 1.10, thus resulting in a new "50% range" value of "9". In addition to the above modifier (depending on year and nationality), any HQ that is stacked in the same hex with the leader associated with that HQ, has its base "50% range" increased by that leader's Leadership#. For instance, a divisional-level leader only increases the range of his division's HQ, not the regimental and/or battalion HQ of his division.



**Command Post:** If the Optional Rule for “Command Control” is enabled, a company-level “Command Post” (CP) is deemed to be inherently present with the *first* platoon of each company. If the first platoon is eliminated, the benefits of the CP are lost (it would be unrealistic to have the CP duties passed on in the time frame of a typical scenario). A CP unit is denoted by a radio icon displayed in the icon area along the left side of the Info Box. In addition, all friendly CP units are highlighted when you select Highlight HQ.

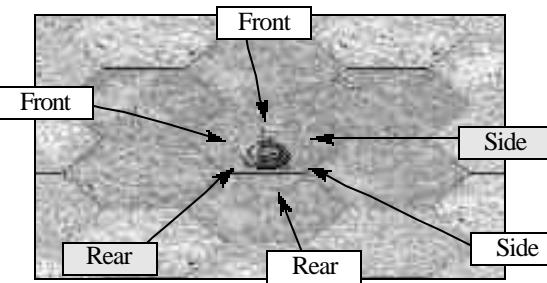
Units that operate beyond their company CP range (or if their CP is not present on the map) are subject to the following penalties:

- a) Less chance of Morale recovery (-1)
- b) Less chance of Disruption recovery (-1)

A CP has an effective range (radius) which is about half the range of that side's battalion HQ. A CP's range is highlighted if it's selected when the **W** hot key is pressed.

**Note:** The radius highlighted by the **W** hot key is the limit of company CP control while for battalions it is the 50% chance of re-supply. This in effect means that units slightly beyond the battalion HQ radius can still be re-supplied, but at a rate slightly less than 50%. However, units outside the Company CP radius suffer the penalty as described above.

**Armor Facing Effects** only applies to Direct Fire vs. armored (i.e., “Hard”) targets. When this Optional Rule is in effect, the Defense Strength used when resolving Direct Fire is based on the facing of the defender relative to the firing unit (the basic Defense Strength is still used when resolving assaults). These values can be found in the Unit Data charts in the Appendix of this Players Guide, or by pressing the **F4** hot key during the game (displays the Miscellaneous (Platoon) Data File). See the diagram below; note that “shot angles” with shaded labels lie directly along a hex “spine” of the targeted hex.



**Design Note:** The standard (i.e. non-optional) defense value of an armored unit represents an overall rating based on the vehicles' size (height in particular), armor thickness, close-defense weaponry, and the assumption that not all of the vehicles may be facing in the same direction, especially in a defensive stance.

The Armor Facing Effects Optional Rule gives individual front, side and rear defense values for each armored unit. These values are based on the standard defense values and hard attack factors, weighted by the actual armor thicknesses of the vehicles themselves. Hence they do not represent armor thicknesses *per se*, but rather the influence of individual armor thicknesses *in conjunction with* the game's existing values.



## V. Campaign Games

*Rising Sun* features two **types** of campaign games: Dynamic Campaign Games and Linked Campaign Games. All campaign games are listed on the “New Campaign” screen. Note that Linked Campaign Games are always listed *following* the list of Dynamic Campaign Games. Note also that the introduction (historical) copy about each campaign game identifies whether it is a *Linked* or *Dynamic* campaign game.

The **Dynamic Campaign Game** (DCG) features a series of linked, albeit randomly-generated, scenarios (aka Missions) that follow an historical path. In a DCG you are freer to choose the side you want to play, as well as the organization type and command level. Too, “you” are represented on the map as an individual leader; if that leader is eliminated the DCG will end somewhat “prematurely”. *Take care of yourself!*

In a **Linked Campaign Game** (LCG) the side you play and the organization you control is predetermined. You command that organization, and all of its inherent units, through a series of exciting, historically linked pre-designed scenarios. Your level of victory in each scenario will determine the scenario you play next in that LCG. Your success in the LCG will determine *how many* scenarios you play, as well as *what* scenarios you play.

As you play either type of campaign game, your “progress” (current position) is reported to you before each scenario as a red dot on a map specially designed for each campaign game.

There are a variety of each type of campaign games to choose from, each of different length and at differing periods of time during World War II. To start a new (or to resume an existing) campaign game of either type, select **Play Campaign** from the Main Menu screen.



The following chart helps to explain some of the other differences between a "Linked" and a "Dynamic" campaign game:

| FEATURE   | DCG          | LCG         |
|---|--------------|-------------|
| Do I have a "personal" leader?  | Yes          | No          |
| If "my" leader is killed, is the CG over?   | Yes          | No          |
| Do I have a choice of side I play in the a CG?  | Yes          | No; preset  |
| Do I have a choice of Org in a CG?  | Yes          | No; preset  |
| Do I have a choice of command level?  | Yes          | No; preset  |
| Are the scenarios historically accurate?  | No; random   | Usually     |
| Are the maps historically accurate?   | No; random   | Yes         |
| Does my level of victory in a CG scenario have an effect on the next scenario played? | No           | Yes         |
| Does my "core" unit take causalities?   | Yes          | Yes         |
| Do my units get replacement SPs?  | Yes          | Yes         |
| Do my "core" units get upgraded?  | Yes, usually | Not usually |



The Campaign Commanders Screen

At the Campaign Commanders Screen you can choose to start a new campaign of either type, resume a current campaign, or delete an old campaign game that you no longer wish to use.

Saved campaign games are displayed in the large window on the right. The title of the actual campaign game that the currently-selected saved game is from is displayed in the lower-right window.

If you wish to start a new campaign, press the **Begin New** button and you will be taken to the New Campaign screen.



The New Campaign Screen

At the New Campaign Screen you will have several choices to make, depending on the type of campaign game being played:

**Nationality (DCG only):** Depends on the nationalities involved in the selected campaign. Note that in an LCG the nationality you play is predetermined.

**Command Level (DCG only):** This determines the command level (and to a lesser degree the complexity level) at which your character will begin the campaign at. For instance, a battalion leader has less units to command than a regimental leader, which has less than a divisional leader, etc. During the campaign, as your leader gains Experience Points, he may be offered the command of the next-higher organization type. You can choose to accept or decline this offer. Note that in an LCG your command level is predetermined (usually a battalion).

**Campaign Game:** Displayed in the Campaign List are the various campaign games of each type (DCG & LCG) that you can play. As a different campaign game is highlighted (use the up/down scroll arrows to the right of the list) the features of the highlighted game are listed in the various windows: the campaign's historical background, the nationalities involved, the date span of the game, and the sector. The end date of an LCG is not listed, as it can vary greatly depending on how well you do, and thus how far you progress, in that campaign.

Press the **OK** button once you are satisfied with your selections.

If playing a DCG (only) you next see a dialog box that allows you to select:

**Portrait:** Use the left & right facing buttons to find an appropriate portrait for your character.

**Name:** You can use the default name that appears, or type in one of your choice.

**Organization Type:** Choose whether you wish to be an "Infantry" or "Tank" leader.

**AI Level:** Select the level of difficulty for this game. As the difficulty increases the enemy side will receive more units. At the two hardest difficulty levels the enemy side also receives beneficial modifiers for combat and resupply.

Press the **OK** button once you are satisfied with your selections.

When first beginning a DCG (only), you will be presented with a number of windows that are used to define the precise organization you will command in the upcoming campaign. Highlight the desired organization type and press the **OK** button. Continue this procedure until the program no longer prompts you for a selection. If a certain organization type did not historically exist in your chosen side's army at the current date, you will see a message stating "No Lower Level Org Available", in which case you should select a different organization type.

When a DCG's organization selection process is complete, the program will take a few moments to generate your character's "core" OOB (organization of battle). As soon as this is complete, you will be presented with your character's Character Screen.



The Character Screen

The Character Screen provides information about the currently selected saved campaign game. The information displayed on this screen varies, depending on the type of campaign game. In a DCG, your character's portrait, his name, and his current rank, organization, and experience points, and the current date are displayed. In an LCG, the portrait is replaced by a military patch/symbol of the higher organization (usually division) of your "core" organization, and the saved file name appears in the "Name" slot. Medals received due to the performance of your organization are displayed in the "Decorations" box. The number and type of medals won have no effect on overall victory in the campaign game and are for "aesthetic" purposes only.

From the Character screen you can:

**Begin Next Mission:** This button launches the next campaign mission (unless the campaign is over or if you are currently involved in an ongoing campaign mission, in which case you must first complete the unfinished mission; see "Resume Mission", below).

**Resume Mission:** This button is only available if you are currently involved in an ongoing (i.e., saved) campaign mission.

**Restore Character:** This button can be used to "restore" (bring "back to life") a Dynamic Campaign Game character that was eliminated in a previous scenario.

**Review Command:** Press this button to display your current Order of Battle (OOB), including the current strength of each unit, as well as its accumulated Experience Points.

**Campaign History:** Once you have at least one campaign mission "under your belt", this display lists a brief summary of each completed mission, including the mission's date and location, and your victory level.



The Mission Screen

Before each new campaign mission begins, you will see the Mission screen displaying a map specific to that campaign game, and a mission statement outlining the general purpose of your next scenario. The location of the encounter is pin-pointed by a red and yellow dot on the map.

#### Dynamic Campaign Game Setup Mode (DCG only)

At the start of each mission of a "Dynamic Campaign Game" (**DCG - only**) you are given the opportunity to adjust the initial setup of all *friendly* units (only) that begin the game set up on the map.

When a new DCG mission begins, the turn box appears indicating turn one. This is followed by a "New Scenario Message" dialog, stating: "Entering Campaign Setup Mode. Select friendly units and right click to move them. Click Next Turn to exit."

To adjust the initial placement of a friendly unit, select that unit, then *right-click* in the location you wish to move it to and the unit will be repositioned. There are some areas on the map where the unit cannot be placed. If you attempt to place the unit "out-of-bounds" you will see the message on the status bar: "Unit Placement is out of bounds". When you are finished adjusting your units' setup press the **Next Turn** Tool Bar button and the first turn will begin.

**Note:** You cannot “save” the game in the Campaign Setup Mode. If you exit the game during Campaign Setup Mode and then re-enter later, the game will begin the first turn.

To adjust the initial placement of a Block, Improved Position, Trench, Bunker or Pillbox fortification, left-click in the hex with the fortification, hold the **Ctrl** key down and right-click in the location you want to move it to. *Minefields cannot be adjusted.*

**Note:** If you move a *fortification* to a location that none of your units currently have a line of sight to, it will be placed there but will not be visible until a friendly unit has a line of sight to it.

### The Campaign Mission

**Experience Points:** During a campaign game mission your units gain “Experience Points” based on “kills” of enemy units and your character’s overall performance in the mission. If a combat unit accumulates enough Experience Points its morale will increase. When this morale increase occurs, the unit’s accumulated Experience Points are reduced by the amount of Experience Points necessary to reach its current level.

**Character Promotion (DCG only):** As your DCG character gains experience points he might receive a rank promotion. Experience also affects if and when your DCG character is offered the command of a larger organization—an “organization promotion”—which can be declined if you wish to have your character continue at his current “command level”. Note that electing to decline an “organization promotion” will not have effect on victory or your character’s progression in the DCG. Normally an “org promotion” will award your character the next higher command level; e.g., if he’s currently a battalion leader, he’ll move up to regimental command. However, in some rare instances there will not be a regimental formation for him to assume command of, and he will instead be awarded the command of a division.

**Winning:** Victory in a *DCG* mission is based largely upon a ratio of enemy kills to friendly casualties, as well as objectives controlled and units exited (as applicable), but there are other factors that enter into the calculation as well, whereas victory in an *LCG* mission is determined in much the same manner as victory in a regular, “set piece” scenario.

Aside from a different method in which victory is calculated for a DCG mission, playing any type of campaign scenario is identical to playing a regular “set piece” scenario.

**Exception:** The “Save As” function is disabled when playing a campaign game, and the game saves automatically whenever you exit. You do not need to save.



### Replacements

Your command will occasionally receive “replacements” in the form of Strength Points. In a DCG replacements will arrive, at most, once per week; in an LCG you might can potentially receive replacements before each CG scenario. Replacement SP can be assigned to any platoon of your “core” OOB which is currently not at full strength.

The Replacements Dialog lists only units of your “core” OOB which are currently not at full strength; i.e., not all units of your “core” OOB are listed. Each line in the replacements dialog lists one understrength unit, followed by its current strength, its maximum strength, and its current morale. Note that as replacement SPs are added to a platoon the “morale” of the platoon decreases. This simulates the absorption of “new”, less-experienced troops by your more-veteran core units. The number of replacement SPs available are listed at the bottom. To assign a replacement SP to a unit, you must highlight the desired unit, then click on the “up arrow”. Each click on this arrow will assign one replacement SP to the highlighted unit.



In a DCG, the *number* of replacement SPs you receive, and *when* they are received, is based on the size of the “core” organization, the sector you are playing in (different sectors receive replacements at different rates), and the current date.

### Equipment Upgrades (DCG only)

At certain points in some DCGs your character’s OOB may be subject to being “upgraded” with new equipment. For instance, obsolete tanks may be replaced by newer models that have just arrived at the front, or a mortar platoon may “trade in” its 81mm mortars for 120mm versions. Sometimes the upgrade may be relatively “hidden”, such as when the “hard attack” factors of your infantry platoons increase to simulate their receiving new and better types of light anti-tank weapons. Occasionally, the upgrading process may even “downsize” your command (for instance, if your character is a regimental leader you may find he now commands two battalions instead of three). Note that you will not always (and probably only rarely) get upgraded with new equipment at the very *first* date it is available. It may be a few months before the new stuff works its way down the supply pipeline to your front-line unit.

The upgrading process happens *automatically*; you will only see a message mentioning that upgrading has occurred. To inspect the new units/equipment, open your character’s OOB (by pressing the Review Command button in the Character Screen or, if playing a mission, by selecting **Find Org...** from the Display pop-down menu).



## VI. The Editors

There are four basic steps to designing a successful scenario for *The Rising Sun*:

- 1) Laying out your Map (creates a "map" file)
- 2) Laying out your Order of Battle (creates an "org" file)
- 3) Laying out your Scenario (creates a "scn" file)
- 4) Testing your Scenario

**Note 1:** Each scenario requires a "map" file, an "org" (i.e., organization) file, and an "scn" (i.e., scenario) file. Even though more than one scenario can use the same "map" or "org" file, each scenario will have a separate "scn" file. Most of the "set piece" (non-campaign) scenarios that come with the game use a naming convention whereby a major geographic reference appearing on the map is used as the file name for each respective file.

**Example:** The scenario entitled "Showdown at Milne Bay" uses the *Kilabo.scn*, *Kilabo.map*, *Kilabo.org* and *Kilabo.bmp* files. In this way, the files conveniently appear together in the *Rising Sun* directory when it is opened in the Explorer and organized according to "Name".

**Note 2:** You can even use (import) any of the pre-existing map or org files in scenarios you create. However, it is imperative that you **do not edit** any of these files (nor any of the scn files), as doing so may result in any scenario using such an altered file not opening properly or an upgrade not installing properly. If you do want to make changes to one of the pre-existing scenario files, be sure to first **rename** that file using the "Save As" command from the "File" pop-down menu.

In each editor the Menu Bar will be displayed across the top of the screen. Many functions for each editor can be accessed from the Menu Bar. For details on each menu and its function refer to the General Help file in the Help pop-down menu of the Menu Bar.



## The Map Editor

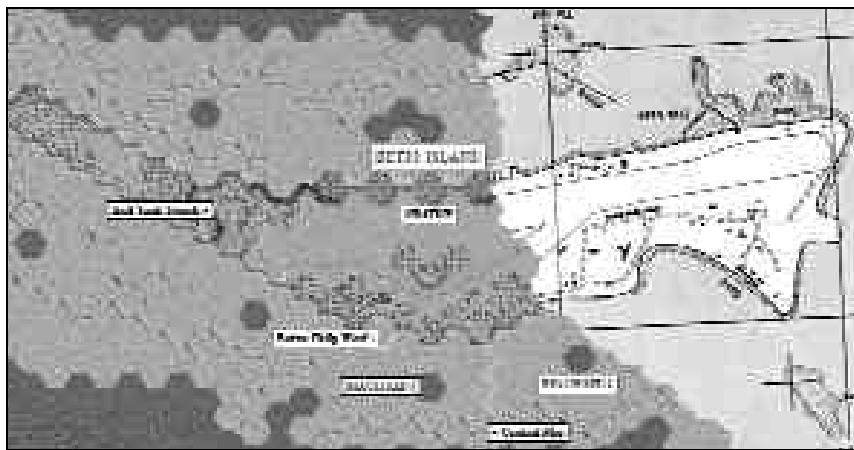
At the Main Menu Screen, press the **Edit Map** button. You will then be prompted to select a "Region" for the map: Tropical or Temperate. Note that each region has a different mix of terrain types available.

**About the Regions of *Rising Sun*:** As a general "rule of thumb", the Temperate region should be used for most scenarios set in Okinawa, Japan, China, the Aleutian Islands, Manchuria or even Australia. The Tropical region should be used for battles taking place in Burma, India, New Guinea, Malaya (SE Asia, basically), and, of course, the various tropical islands of the South Pacific.

After you have selected a "region", the Map Editor screen will appear. At this screen you can choose to use the various controls and slider bars (see illustration above) to create a new, random map, or you can press the "Edit Existing Map" button to bring up a dialog box listing all .map files contained in the *Rising Sun* directory.

If you are starting a new map, you have two basic choices:

- 1) Use the various controls (slider bars, toggle switches and up/down arrows) of the Map Editor screen to set basic parameters for the map. These parameters include the map dimensions, base level of the terrain, whether or not you want the map to have a coastline, lake or a major river. Also provided are "slider bars" for each terrain type. The higher the value of the slider bar, the more prevalent that terrain type will be on the map (or the wider the river). When you have adjusted these levels to your satisfaction, press the "Make Map" button and the program will create a random map based on your settings. You can then edit this map in the map editor program.
- 2) If you instead wish for your map to start with a "clean slate" so that you can define all of the terrain, simply adjust the map dimensions to the desired size (leaving all "slider bar" settings at the default "0") and press the **Make Map** button. The program will generate a blank map and open it in the map editor program.



### Editing your Map

Once you have pressed the **Make Map** button (or have elected to edit an existing map), the map editor program will open.

By default, the map editor starts in the 2D Normal view. You will probably find it is easier to create maps in this mode. However, you can change the view at any time to whatever map view you find easiest to work in.

The entire map can be "rotated" 180° (thus allowing you to view it with its "top edge" at the "bottom"). It is a good idea to plan the layout of your map so that the opposing forces will end up being situated roughly along the top and bottom edges. Thus, a player can always view "his" units along the "nearer" bottom edge, facing the enemy along the "further away" top edge.

### Map Dimensions

You may have decided that the original dimensions you selected for your map were not large enough, or too large, depending on the overall scenario you wish to create. To change the size of your map select **Resize** from the "Extent" pop-down menu. Type in the desired width and height of your map, in hexes.

**Note:** There is a restriction that confines each map to having an even number of hex columns; i.e., you can't have an "odd" number for a map's width.

#### TIP #1

**SCALE:** Keep in mind that each hex in the game represents an area approximately 250m from side to side or top to bottom (thus, one km would be 4 hexes).

### Map Elevation

You can also change the base elevation and adjust the elevation change delta. To change these values, select **Elevations** from the "Values" pop-down menu. To define the height (in meters) of the *lowest* elevation on the map, input a number for the "Base" value. To set the difference (in meters) between elevation levels, input a number for the "Delta" value.

You can raise (or lower) the entire map's "base" terrain by selecting **Extent** in the **Menu Bar**, then selecting **Raise** (or **Lower**).

Next you may wish to adjust your map's elevations (hills, gullies, etc.). To change a hex's elevation select the appropriate number from the **Elevation** pop-down menu. You can then left-click in a hex to change the base level of that terrain to the selected level. See also "Cluster Fill" and "Rectangular Fill" on page 96.

**Note:** A vehicle (only) is not allowed to cross a hexside if the elevation "delta" of that hexside is >50m (regardless of the number of elevation level changes along that hexside). This applies regardless of the presence of roads.

**Important:** It is important that all elevation "breaks" (the elevation changes between adjacent hexes) be limited to a maximum of three (though most breaks should still only be a height of one), as the 3D map hexside graphics do not support elevation changes of four or more.

#### TIP #2

**BASE ELEVATION & DELTA:** The map editor's default values for these are "0" (sea level!) and "25" respectively. Most likely you will need to change these.



### The Map Editor's Tool Bar

The various buttons of the map editor's Tool Bar provide an easy means to quickly switch from one map editing tool to another. The terrain buttons available will differ, depending on the region (Tropical or Temperate) of the currently open map. A description of each button is provided when you roam your cursor over the button. For even more information on what each Tool Bar button is for, as well as descriptions of all of the items of each pop-down menu, press the **F1** key, or select **Contents** from the "Help" pop-down menu.

**Note:** In order to click on hexes of the map without changing the data, use the "None" tool on the Tool Bar. This allows you to examine an individual hex without making any changes. If you accidentally change a hex you can always use the "Undo" button to return the hex to its original state.

Each terrain type and hexside type have a corresponding button on the Tool Bar. Select the terrain you wish to place, then left-click once in the hex that you wish to have that terrain. For hexsides, select the hexside type you wish, then click on (or near) the hexside you wish to have it on. See pages 59-73 for more information on terrain types.

You can remove a terrain (hex or hexside) type you have placed by *right-clicking* on the hex. This will return that hex to a clear terrain.

**Map Labels:** You can also use the Tool Bar to name or label certain areas or features of your map. Press the Tool Bar button displaying **T±**. Then left-click on the hex you wish to add a label. A dialog box will appear allowing you to input a name. You can also adjust the size of the copy, and the color ("Plain" for a black label, "Water" for a blue label, and "Forest" for a green label). The "Justification" allows you to center the map title, or have it "flush" left or right. **Warning:** If the "T±" (map labeling) button is "on" (i.e., depressed), a right-click on the map will delete the nearest map label to the area right-clicked on.

To toggle map labels on (or off), press the **T** Tool Bar button.

**Fill:** To quickly fill in large areas of your map with one particular terrain type or elevation there are two "fill" features that you can use:

**Cluster Fill:** Hold down the **SHIFT** key when left-clicking a "full hex" terrain type on the map to fill in the clicked-on hex, as well as the six adjacent hexes. This does a 7-hex "cluster" fill.

**Rectangular Fill:** Hold down the **Ctrl** key after selecting the upper/left corner, then, while continuing to depress the **Ctrl** key, click on the lower/right hex to have the selected terrain type fill in.

After using either "fill" feature, you may want to "touch" them up so they do not look like they are placed on the map in a pattern. Adding or removing some terrain hexes to the outer edges will make the terrain "fill" look more natural.

**Bridges:** If you wish to create a bridge across one or more *full hexes* of water, simply create a road (paved, unpaved, RR or path) in a "straight line" (i.e., without curving) across that water hex and the program will automatically create a "full hex" heavy bridge. Roads placed across water should not "turn" or the program will not place a bridge.

**Note:** Full-hex bridges can be damaged, and pontoon bridges can be placed, in the Scenario Editor.

#### Saving the Map File

From the "File" pop-down menu, select **Save**. When the Save As window appears, type in a name for your map. Your map file will be saved in the *Rising Sun* directory with the extension *.map*.

Once you have completed and saved your map you can leave the map editor by selecting **Exit** from the File pop-down menu.

**Note:** It is a good idea for you to save your map file, your order of battle file, and, eventually, your scenario file, all with the same name. The computer will automatically add the proper extension. For example, if you are creating a *Tulagi* scenario, save your map as *Tulagi.map*, your order of battle as *Tulagi.org* and your scenario file as *Tulagi.scn*.



## The Order of Battle (OOB) Editor

Besides needing a map, each scenario also requires an "org" (short for "organization") file. It is this file that the various and sundry company, battalion, division and corps organizations are "written" to—organizations that contain the actual combat units that move around and fight on the map. The *Rising Sun* Order of Battle (OOB) Editor allows you to pick from a very wide variety of historically accurate military organizations.

From the Main Menu, press the **Edit Order of Battle** button to launch the OOB editor. It is a good idea for you to have some familiarity with the organizations that you wish to include in your scenario. Once you locate them in the OOB editor, you can create an OOB using those "org" (organization) types.

The first step in setting up your OOB is to set the date. Usually, this date should be the same as your scenario's date. Set the date (month and year) with the pop-down boxes on the OOB editor's Tool Bar.



**Note:** For accuracy in your scenarios, the date is very important. Setting the proper date ensures that only units that were available at that period of the war are available in your scenario.

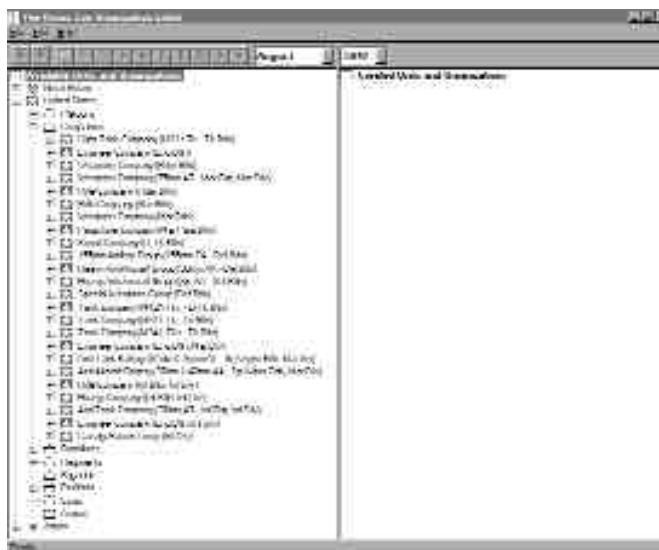
### Rising Sun Organization Editor Availability Dates

| Nationality       | Earliest Date Available | Latest Date Available |
|-------------------|-------------------------|-----------------------|
| Japan             | December 1941           | December 1946         |
| U.K./Commonwealth | December 1941           | August 1945           |
| United States     | December 1941           | December 1946         |



### OOB Editor Tool Bar

The OOB Editor's Tool Bar is located near the top of the OOB Editor's Interface (see illustration below), and provides tools useful in moving selected "orgs" and units from one place to another. If you position the cursor over a Tool Bar button a brief description of that button's function will be displayed after a moment. For more information on these buttons consult the OOB Editor's on-line Help file, and see pages 99-100 of this manual.



### Locate your Organizations

The list displayed in the left-hand "Available Units and Organizations" column lists all the different organizations available, from Platoons to Corps. You will most likely want to be selecting battalions, regiments, brigades, and/or divisions, depending on your scenario's size. Each nationality's organizations are grouped together by organization type.

To see all the units in each organization type for a nationality, click on the box with the "+" to the left of the organization. The "folder" for that organization type will open, displaying all the available different types of organizations, for the selected nationality, of that command level. Allow a few moments for the program to organize all the organizations and units in a nationality's folder after clicking on that folder to open it.

**IMPORTANT:** It is very important that each platoon added to your OOB is within some type of organizational structure (usually within a company or battalion "folder") in order for the game's AI to know how to "use" the unit properly. That is, you should not simply bring over "loose" (i.e., "independent") platoon units; they need to be "grouped" under a battalion (or higher-level org's) "roof". Therefore, it is highly recommended that you build an organization with a battalion as the **minimum** organization. If you still wish to customize it by adding a special platoon to it, be sure to put that platoon "inside" that organization using the "Lower Unit/Org" Tool Bar button; see "Customizing Your Organization" on page 100.

### TIP #3

**MINIMUM ORG SIZE:** It probably cannot be emphasized enough that the *minimum* organization in your scenario's Order of Battle should be a battalion (as this is the lowest-level unit that contains an "inherent" HQ). If you "import" lone platoons or companies into a side's OOB, be sure you then put them "inside" a battalion or higher-level org that has an HQ. In other words, don't simply import a lot of platoons or companies without adding them "into" (i.e., putting them inside an org "folder" that has...) an org with an HQ.

**Example:** Determine the "size" of the encounter you want to depict, and find the battalion or higher-level orgs (from within the list of organizations) that best match the type of units involved. As necessary, supplement that org with specialized platoons and/or companies, but be sure to put those companies "inside" that org.

### Adding Units to Your OOB

Once you have located the organization you wish to add to your OOB, highlight (select) the org's name by a single left-clicking on it.

Left-click once on the **Add Unit/Org (Auto)** Tool Bar button to place the org highlighted in the "Created Units and Organizations" column (where all units of your scenario's org will be listed). This will automatically assign a random organizational number(s) to that org if it is battalion-level or higher.

Left-click once on the **Add Unit/Org (User)** Tool Bar button to place the org highlighted in the "Created Units and Organizations" column, which will allow you to assign a specific organizational number to that org (as well as to many of its sub-organizations, if applicable); i.e., use this method of adding an org if you know that you want the 101st Infantry Division added to your org, not just any rifle division. You will also have to select all the units otherwise randomly chosen by the computer.

**Warning:** Using the Add Unit/Org (User) Tool Bar button for a division or higher org requires that you input a **lot** of names for the lower orgs of that organization (e.g., the regiments of a division).

### Placing Leaders in Your OOB

You can manually add a leader (known in an OOB file as a "Commander" unit) to any org from company on up. To do so, open that nationality's "platoon" list on the left side of the screen and scroll down to the bottom of the platoon list until you see the various "commanders".

**Note:** A "5" Leader is better than a "1" (one) Leader; also, if the org you wish to add the Leader to is "motorized", be sure that you add a "mot." (motorized) Leader type.

**What Leader type do I use?** Generally, a motorized ("mot." type) Leader should be used unless the organization he is being added into is a non-motorized formation.

To add the leader to the unit you desire, highlight the leader in the "Available Units and Organizations" column.

Then left-click once on the **Add Unit/Org (Auto)** Tool Bar button to add the leader to the "Created Units and Organizations" (right-hand) column.

Then left-click on the **Move Unit/Org Up** Tool Bar button as necessary to move the highlighted leader until he is displayed directly beneath the org you wish to incorporate the leader into.

Then, with the leader still highlighted, left-click once on the **Lower Unit/Org** Tool Bar button. This will "lower" the leader into the org directly above him.

**TIP #4**

**DON'T FORGET LEADERS:** It is your responsibility to add leaders to your OOB; the org editor will not do this for you. Adding more (and better) leaders to one side or the other is a good way to help balance a scenario, and also to help simulate a side's "resourcefulness".

For example, in a Japanese vs. British scenario, the Japanese should usually have better leaders in the early part of the war (1941-42); the British should still have some, but usually not as good, and probably not as many (man for man) as the Japanese ones. However, if your scenario is a "late war" (e.g., 1944-45) scenario, the British leaders should be better than, and perhaps more plentiful, than the Japanese leaders (by then the Japanese cadre of seasoned leaders had been severely diminished, and the British experience level was rising).

**Customizing your Organization**

If you wish to make your own custom orgs by say, adding in a certain battalion type into a regiment, you can do this similar to adding a leader. To add the unit or org to the org you desire, highlight the unit/org in the "Available Units and Organizations."

- Then left-click once on the **Add Unit/Org (Auto)** Tool Bar button to add the unit/org to the "Created Units and Organizations" (right-hand) column.
- Then left-click on the **Move Unit/Org Up** Tool Bar button as necessary to move the highlighted unit/org up until it is displayed directly beneath the org you wish to incorporate it into.
- Then, with the unit/org still highlighted, left-click once on the **Lower Unit/Org** Tool Bar button. This will "lower" the highlighted unit/org into the org directly above him.

**Other OOB Editor Tool Bar Tips**

- To quickly move the selected unit/org all the way to the top of the org it is in, highlight the unit/org and left-click once on the **Unit/Org to Top** Tool Bar button.
- To delete the selected unit/org from the "Created Units and Organizations" side, highlight the unit/org and left-click once on the **Delete** Tool Bar button.
- To quickly adjust the morale level of *all* units in an org, highlight that org's name on the "Created Units and Organizations" side, and left-click once on the **Adjust Morale** Tool Bar button. A dialog box will appear. Left-click on the desired number to set the morale of *all* units in the highlighted (selected) org to that level.

**Finishing Your Order of Battle and Saving It**

Continue adding orgs (for both sides) until the "Created Units and Organizations" column on the right side of the screen contains all of the units/orgs you will need in your scenario.

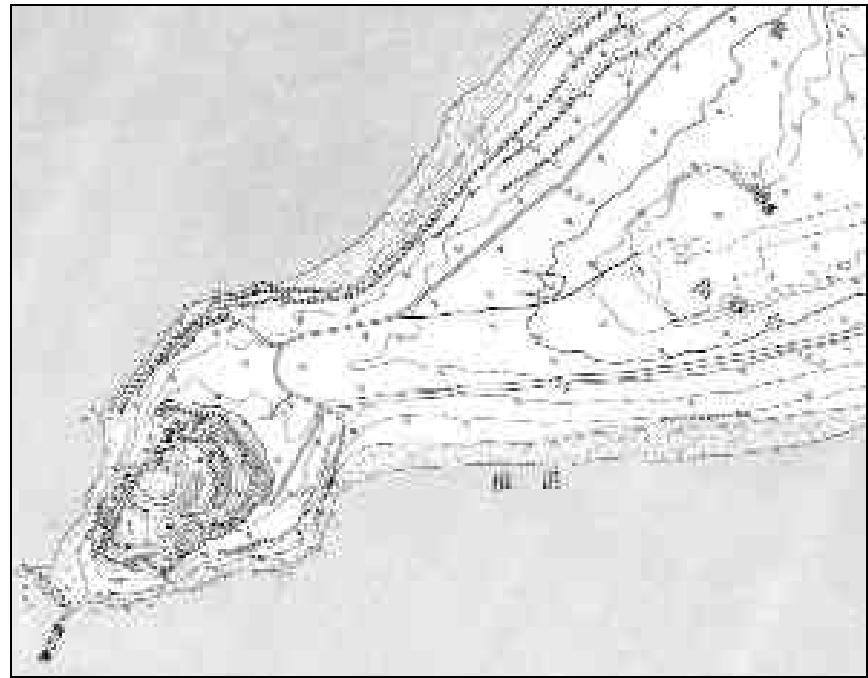
If you later discover that you did not include a unit or org that you needed for your scenario, you can reopen your org file in this editor and add the unit.

**Note:** Not all units appearing in an OOB need to be placed in the scenario.

To save the OOB file select **Save** from the File pop-down menu. When the Save As window appears, type in the name you would like to use for your OOB.

Your OOB file will be saved in the *Rising Sun* directory with the extension .org.

Once you have completed and saved your OOB you can leave the OOB editor by selecting **Exit** from the File pop-down menu.

**The Scenario Editor**

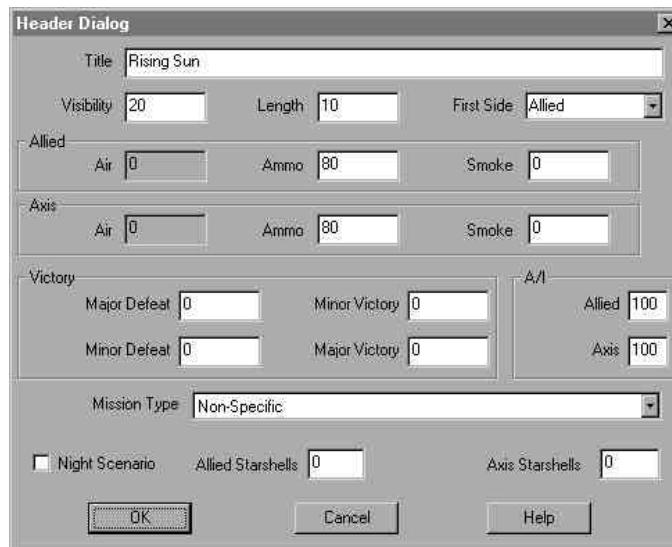
Once you have finished the .map and .org files for your scenario, you can begin to lay out the pieces on the map and define the "parameters" of the contest.

Upon starting the *Rising Sun* Scenario Editor you will be prompted to open one of the preset scenarios already in the game, from the Open dialog. Unless you have a scenario already in progress that you wish to continue editing, cancel this command immediately.

**WARNING!** Although you can edit the pre-set scenarios that come with the game, **it is highly recommended that you do not tamper with any pre-set scenarios**, as this may not only alter how the scenario functions, but it may become unusable, and may also prevent an upgrade from properly working if any of the files of such a "tampered" scenario are being updated by that upgrade. If you do edit a preset scenario (without renaming it through the "Save As" routine) you may need to reinstall the game to have it (or an upgrade) work properly.

Once the Open dialog is closed select **New** from the File pop-down menu to start a new scenario. You will then be prompted to insert the names of the map file and the org file that you wish to use with the scenario you are creating. In the dialogs that appear, locate the file and click on the **OK** button.

Once the map and org files for the new scenario have been selected the following Header Dialog will appear.



In the scenario's **Header Dialog** you define the following:

The **Title** of the scenario is what will be displayed in the Scenarios screen where the scenario to be played is selected. The default title is "Rising Sun".

The **Visibility** value determines the maximum distance in hexes that can be seen during the scenario. During a Night Scenario this will be the greatest distance that a Gunflash or Illuminated hex can be fired at. The default value is "20". The value input here determines the "weather" (see weather chart on page 39).

The **Length** value is the number of Game Turns you want the scenario to run. The default Game Turn length is "10".

The **First Side** (generally, the attacker) determines which side moves first in each Game Turn.

The **Air** value determines the number of Air Attacks available to a side during the scenario.

The **Ammo** value is used to determine the percent chance that a unit will be resupplied if not otherwise resupplied by its HQ; see pages 78-79. The default value for ammo is "80".

The **Smoke** value determines the number of times smoke can be fired by a side.

The values for **Major Defeat**, **Minor Defeat**, **Minor Victory**, and **Major Victory** determine the victory levels of the scenario. The main program calculates Victory Points (VP) for a battle based on objectives controlled and losses incurred by both sides. If the VPs for the First Side fall below the Major Defeat value, then the First Side receives a Major Defeat for that battle. If the VPs fall between Major Defeat and Minor Defeat, then the First Side receives a Minor Defeat. If the VPs fall between Minor Defeat and Minor Victory, then that battle results in a draw. If the VPs fall between Minor Victory and Major Victory, then the First Side receives a Minor Victory. If the VPs are greater than Major Victory, then the First Side receives a Major Victory for that battle. See also pages 80-82 for more on victory levels and how a scenario is won.

The **A/I** values determine the aggressiveness of a side when it is played under the control of the computer. These values range from 100 (most aggressive) to 0 (least aggressive). It is recommended that the army you wish to "attack" be set from about 60 to 100 (100 would be an "all out" attack). The side you want to defend should have a lower A/I setting, perhaps 10 to 40. To find the best A/I level for your scenario you will probably have to experiment with different settings.

The **Mission Type** dialog can be used to select a "type" of scenario. This will only affect how the A/I will perform if one side or the other is A/I-controlled. Keep in mind, however, that the A/I is influenced by *many* factors—not just Mission Type selection. Merely specifying the mission will not insure a brilliant A/I. For instance, the number and placement of Objectives map has a big influence on where and how the A/I decides to attack.

The **Night Scenario** box, if checked, invoke Night rules for the scenario.

The **Starshells** dialog boxes are used to allot Starshells to each side (as desired) for a Night scenario.

**NOTE:** The **Air** value displays the number of Air Attacks available to a side during the scenario. This section is "greyed out" as Air Attacks are now set by selecting "Airplanes..." from the "Scenario" pop-down menu. The dialog that appears lists all Air Attacks available, grouped according to nationality.

#### TIP #5

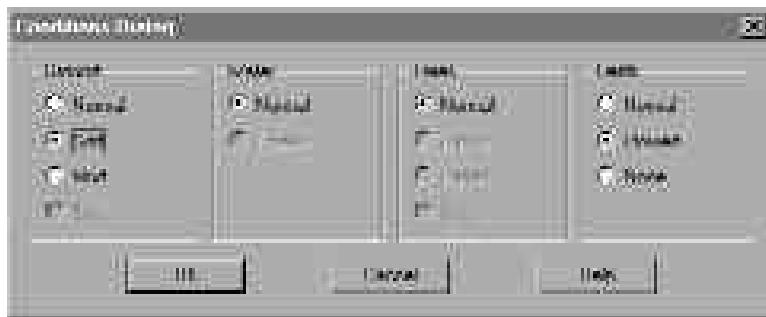
**AMMO:** Don't forget to consider the ammo levels. In general, you will probably want a value between 70 and 85 (anything less than 70 should probably only be used for a side if it is disorganized, cut-off and/or short on supplies; anything higher than 85 should be used only to represent a side that is especially well-supplied).

#### TIP #6

**VICTORY LEVELS:** Don't forget to put in four different values in each the victory levels boxes of the "Header Dialog" (the default values of "0" just won't do!). Obviously, you will have to weigh the amount and value of the objectives that your scenario has and which objectives you expect the First Side (usually the "attacker") to capture in order to achieve a minor and major victory. You also need to consider acceptable casualty levels for the attacker, as well as if you intend for your scenario to always be played as the human controlling a certain side vs. the computer (as opposed to balancing it solely for "two player" play). Getting good victory levels will be important for your scenario to be properly balanced, and is easily one of the hardest things to get "just right".

#### TIP #7

**A/I VALUES:** Easily the most commonly overlooked dialog, and quite important for proper A/I behavior. These values are set in the scenario "Header" dialog. The "A/I" values for the "attacking" side should be set from about 60 to 90, in general. The higher the value, the more aggressive and "all out" the attack will be. If a scenario has a clear-cut defending side its A/I value should probably be set from about 0 to 40. A "0" would represent a "die where you stand" defense. Experiment with different values and watch how the units move and react.



**The Conditions Dialog:** The Conditions Dialog will then appear so you can establish the environmental conditions for the current scenario. Note that the two "regions" of the *Rising Sun* do not have the same environmental choices. An environmental condition that is "greyed out" is not available in the selected region; e.g., "Snow" ground condition is not available in a Tropical-region map.

The **Ground** selections are Normal, Soft, Mud, and Snow. Ground conditions affect movement during the battle. When snow Ground Conditions are in effect, marsh is treated as open terrain and swamp becomes forest.

The **Water** selections are Normal and Frozen. When the water is Frozen, all water hexes are treated as open hexes, and streams and minor rivers become gullies.

The **Tree** selections are Normal, Brown, Barren, and Snow. These selections are purely graphical and have no affect on play.

The **Field** selections are Normal, Plowed, and None. Normal fields affect line-of-sight and movement, while Plowed fields present no line-of-sight obstacle and only affect movement.

#### TIP #8

**CONDITIONS:** Be sure to set the environmental "Conditions" (available from the "Scenario" pop-down menu) to conditions that are "logical". For instance, fields should not normally be in effect in January, you should not have frozen water and/or snow in July, etc.



**Description Dialog:** The Description Dialog is used to enter a description of the scenario, the author's name, and the date.

#### TIP #9

**SCENARIO DATE:** It is important that you use the format day-month-year (e.g., "5 May, 1942") if you want your scenario's date to be consistent with the dates of the preset scenarios and to display in proper chronological order with the other scenarios.



**Note:** If you want your scenario to have a unique picture (one that will be displayed whenever your scenario's title is selected in the Scenarios screen) you can insert a graphic file with the exact same name as your scenario and a **.bmp** extension into the *Rising Sun* directory.

**Example:** If your scenario's file name is *Tulagi.scn*, the title of the graphic must be *Tulagi.bmp* (ensure that the picture file and the scenario file have identically spelled names). The dimensions of the picture you select should be 256 pixels wide by 125 pixels high, and the graphic should be saved as a Black and White or 256-color bmp-type file, in order for it to display properly.

#### Picking out Air Attacks

Air Attacks are set by selecting **Airplanes...** from the "Scenario" pop-down menu. The dialog that appears lists all Air Attacks available, grouped according to nationality. Most nationalities have several Air Attack types to choose from. To add an Air Attack, select the desired type then press the **Add** button to add one Air Attack of that type for that nationality. For a chart listing the Air Attack types available and their values, see page 183 of the Appendix.



**Forces Dialog:** The Forces Dialog is used to place units on the map or to add them in the form of reinforcements.

The Forces Dialog lists the units of the "org" file that was selected for the scenario, and contains all available units for a scenario. As units are placed on the map they are removed from the units displayed in the Forces Dialog. If a unit that has been placed on the map is deleted, it is automatically added back into the list of available units in the Forces Dialog.

If the Forces Dialog is closed, you can reopen it by selecting **Forces Dialog** from the Units pop-down menu.

#### Placing Units on the Map

To start placing the units for your scenario on the map, find the unit you want in the Forces Dialog. With the specific unit highlighted in the Forces Dialog (i.e., not an organization, but the actual platoon-unit), **right click** on the hex you wish to place it in. Once that unit is placed, the next unit in the Forces Dialog will be highlighted and automatically selected. Continue to place units until you are satisfied with the units on the map. Not all the units in the Forces Dialog need to be placed in the scenario.



You can use the "Turn (counter)clockwise" Tool Bar buttons to adjust the facing of the unit. Once the facing is set for one unit, all subsequently placed units will have that facing, until the facing is changed again. To see a unit's facing, you will need to view the 3D icon, either on one of the 3D map displays, or by checking the icon shown in its Info Box.



### Placing Off-Board Artillery

Occasionally you may wish to place an artillery unit off-map to represent a battery far removed from the field of battle.

**Note:** Rising Sun artillery units include the guns of "off-shore" ships. It is intended that naval guns should only be placed as off-board artillery; i.e., they should never be placed "on-map".

To place an artillery unit "off-board", you must first locate and select the unit in the Forces Dialog. (do not place the unit on the map) Once you have the artillery unit thusly highlighted in the Forces Dialog, then from the "Settings" pop-down dialog select **Add Off-Board Artillery...** A dialog box will appear (see following illustration).

There are two ways that you can define the location of an off-board artillery unit:

- 1) Left-click in any "blank" area surrounding the miniature map displayed in this dialog box. Note that as you click, the "x, y" coordinates displayed in the small windows in the lower left will change.
- 2) You can also type in the desired "x, y" in the "Hex Coordinates" boxes. Note that you can get long-range artillery (such as naval guns) much farther away using this latter method.

When you are satisfied with the selected location, press the **OK** button.



### Placing Reinforcements

If you wish to have some units enter as reinforcements during the scenario, you must place them in the hex you wish them to enter (which should be along the edge of the map). Once the units are placed, select the unit(s) by double clicking on it, then select **Add Reinforcements** from the "Settings" pop-down menu. The Reinforcement Dialog will then appear in which you can set the Game Turn number of the unit's arrival and the percent chance that the unit will arrive at that time.



**Air-Landed Reinforcements:** If you want a reinforcement group to enter via Paradrop or Gliders, put a check mark in the appropriate box of the Reinforcement Dialog. You can set the amount of "scatter" for an air-landing reinforcement group by inputting a number in the "Scatter" window. There are currently no restrictions on which units can land via parachute or glider; it is up to you, as the scenario designer, to make logical decisions here.

**Note 1:** If unit facing is important to you, you will also want to have the reinforcing units facing the proper way before you remove them from the map via the reinforcement process.

**Note 2:** When selecting transports to arrive with their passengers as reinforcements, you should ensure that the passengers are loaded on their respective transport before you remove them from the map via the reinforcement process.



### The Scenario Editor Tool Bar

The scenario editor's Tool Bar allows you to set different types of hex fortifications, place pontoon bridges, set your Objective hexes, and adjust the status (Fixed, Fatigued, reduced-SP, etc.) of units. Holding your cursor over a Tool Bar button will display a brief description of that button.

### Adjusting your Placed Units

After you have placed your units on the map (or while you are placing the units) you can use the Tool Bar to alter various conditions of the selected unit. You can set up a unit as fixed, fatigued or disrupted, and adjust its starting Action Points, Morale or Strength. You can also rotate or remove units using different Tool Bar buttons.

To adjust the values or the status of a unit you must select the unit by double clicking on it. You can then use the proper Tool Bar button to adjust the desired value or status.

**Note:** Though you can adjust Action Points, Morale and Strength they can never go above the nominal level set in the .org file.

If you want to have one or more of the organizations in your scenario to begin "Fixed" (so that units of it cannot move until fired on or released), you may want to set when that org will be released during the scenario. To set up the release time of an org,

select **Add Release** from the "Settings" pop-down menu. This will open the Add Release dialog. Using this dialog, you can select the individual unit or organization, and set the Game Turn of its release. Highlight the unit or org you want to release in the Add Release Dialog, then input which Game Turn it will be released, as well as the percent probability that they will be released at that time. You can check or delete a release you have set using **View/Delete Releases** from the Settings pop-down menu.



Setting Objective Hexes

 Each scenario must have objectives for the opposing units to try and capture or defend and/or to exit from. To set up an objective hex, left click on the hex that you wish to give an objective value to. Click on the Objective Tool Bar button to bring up the Objective Dialog. Select which side currently controls the hex and set the point value for the hex. Selecting a point value of zero, or setting the controlling side to "None", will cancel the objective hex.

To create an *Exit Objective Hex* select a hex on the map edge and assign it to the side you wish to have exit from that point. Then define the point value for the objective as **-1**. Each unit of the side corresponding to the color of the objective that exits from that hex during the scenario will add its VP value to that side's Objective Points for the scenario. Note that the value of a unit of the "Second Side" exited from an *Exit Objective Hex* for its side has its VP value subtracted from the First Side's Objective Point total.

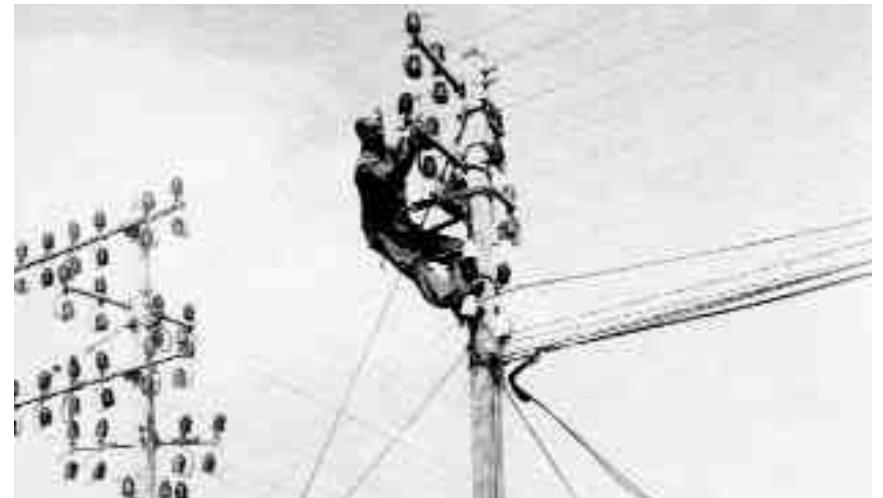
#### Saving the Scenario

When you have completed your scenario save it by selecting **Save** from the "File" pop-down menu. When the Save As window appears, type in the name you would like to use for your scenario.

**Note:** It is a good idea to save your map file, your order of battle file, and your scenario file, all with the same name. The computer will automatically add the proper extension. For example, if you are creating a *Tulagi* scenario, save your map as *Tulagi.map*, your order of battle as *Tulagi.org* and your scenario file as *Tulagi.scn*.

Your scenario file will be saved in the *Rising Sun* directory with the extension *.scn*.

Once you have completed and saved your scenario you can leave the scenario editor by selecting **Exit** from the "File" pop-down menu and open the file in the game. In the Scenarios screen, look for the title you input in the Header dialog (see page 102).



## VII. Multi-Player Modes

*TalonSoft's Rising Sun* has a variety of multi-player modes that can be used for "head to head" contests with other *Rising Sun* aficionados. All multi-player game modes require that *both* players have the *Rising Sun* CD in the drive for each computer.

#### MODEM CONNECTIONS

Internet, Modem and Serial (Null Modem) connections are all started as Modem games. You can either begin the game as the Modem Host or the Modem Caller.

#### INTERNET TCP/IP PLAY

Prior to beginning an Internet game of *TalonSoft's Rising Sun*, the Host Player should ensure that he has a valid TCP/IP connection established on his computer. Typically this is a service of your Internet Service Provider.

**Multi-Player *Rising Sun*:** *Rising Sun* supports internet or network games of up to 16 players! The quality of play will depend several things, including how heavy internet traffic is at the time, the quality of each participant's service provider, and the speed of each player's computer. You may want to experiment with letting different players "host" the game to find the best quality of play.

Once connected, you will need to run *winipcfg.exe* from your Windows® directory to find out your current Internet address. The easiest way to do this is at the Run command in the Windows 95/98® Start Menu. Type **C:\windows\winipcfg.exe**. You will be looking for the IP address. **Note:** Typically, this address is changed by your Internet Service Provider each time an Internet Connection is established.

The Modem Host player should then provide the Modem Caller player(s) with the IP address prior to launching *Rising Sun*. This can be done by calling the Caller on a separate line, by sending the address through E-Mail, or by using an Internet "Chat" program.

1. Select **Play a Scenario** from the **Main Menu** screen.
2. Select the **Modem** option from the **Scenario Type** Screen.
3. The Modem Host should select a new scenario or resume a previously saved game.

- The Host, when prompted for the type of Direct Play connection, should choose Internet Connection.
- The Caller(s) should connect and provide the appropriate IP address when prompted.
- At this point, both players will have a Communication Dialog and play will start or continue similar to a standard game.

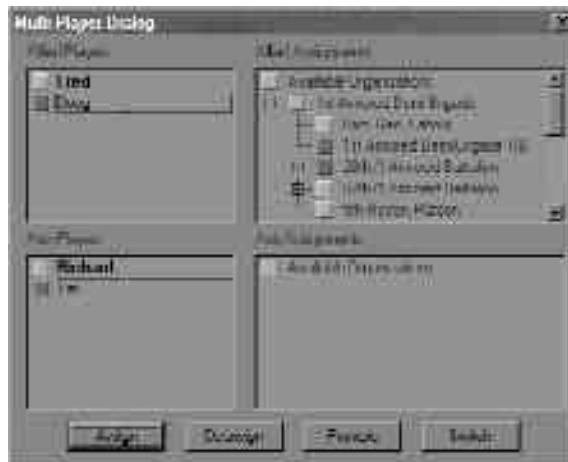


**Multi-Player Comm Dialog:** When playing a multi-player game you can prevent the messages that you type in the Comm Dialog from being seen by players on the other side by checking the "Send to my side only" box located at the bottom of the Comm Dialog (check this before you press your keyboard's **Enter** key to send the message). A message sent to players of your side only is preceded by an asterisk. To send a "global" message to all players in the game, simply uncheck this box before pressing the **Enter** key.

**Multi-Player Timed Game:** The Host player in a live multi-player game has the option to use **Set Network Play Timer** from the **Special** pop-down menu to input a time, in minutes, that will be used by the program to automatically end each Player Turn. This time can be reset at any time, but only by the Host. If the time is reset, a message is displayed to all other players of the new time that has been set.



**Timer Warning Light:** When playing a multi-player game using the timed play option (see above), a colored "light" appears in the lower right-hand corner of the status bar (just to the left of the hex coordinate numbers). When a green light appears here it's your side's Player Turn. When the green light changes to yellow it is a warning that your side now has less than one minute until the Player Turn ends. When this light is red it is the other side's turn. When the red light turns orange, it is simply warning you that the enemy now has less than one minute remaining to finish their turn.



**The Multi-Player Dialog:** This dialog can be accessed from the "Special" pop-down menu, and is only useful in games with more than two players. The dialog is divided into a

top half (listing all Allied players) and bottom half (listing all Axis players). Note that the "Captain" of each side is always listed in bold at the top of the player list for that side. The "host" is always the Captain of his side.

Along the bottom of this dialog are four buttons. Each of these buttons is used by selecting (clicking on) a player's name and then clicking the button. The functions of these buttons, and who can use them, follows:

The **Assign** button is used to assign an organization to the selected player. Only the Captain of a side may use the Assign button.

The **Deassign** button is used to take the command of an organization away from the selected player. Only the captain of a side may use the Deassign button.

The **Promote** button is used to assign a new "Captain" to a side. Only the "host" may use the Promote button.

The **Switch** button is used to change the nationality (side) of a player. Only the "host" may use the Promote button.

**Scroll to View Enemy Action** is "on" by default, but automatically changes to "off" if there is more than one enemy (opposing) player. You can turn it back "on", but it will revert to "off" if more players join. With this enabled, during a multi-player game (only) the computer will scroll the map to display visible enemy actions.

#### Connecting to an Internet Session of RISING SUN

Once you have the host's "IP" address launch *Rising Sun*. From the Main Menu screen select **Play Scenario**. When the "Scenario Type" screen appears select **Modem Caller** then select **Start New Game**. When the "Scenarios" screen appears select any scenario (we suggest a low-complexity one, like one of the "Bootcamp" scenarios) and press the **OK** button. The actual scenario selected when initially launching the program does *not* matter, as the host loads the scenario. The host should also inform you if he wants you to enter the game on his side, or on the other (non-host) side.

When the "Player Dialog" appears type in your name or nickname. Here is also where you choose to play on the same side as the host or not.

Next you'll see the "Connection Dialog". Select "Internet TCP/IP Connection for Direct Play" then press **OK**.

Next the "Locate Session" dialog appears. This is where you type in the IP address of the host. Then press **OK** and the program will try to connect to that IP address. This usually happens flawlessly, but, if not, keep trying a few times. If you get a "no valid sessions" message, perhaps the host got knocked off-line and had to establish a new IP address by re-logging on. Perhaps check your e-mail or Internet chat again for a new IP address.

If you're playing a multi-player game, you'll want to open the **Multi-player dialog** from the "Special" pop-down menu. Once the game is up, you can chat with the other players in the "Comm Dialog". If playing a multi-player game check the "Send to my side only" before sending the if you want *only* players of your side to see the message.

## NETWORK IPX PLAY

You can use this connection to play over a Local Area Network (LAN).

The Modem Host will begin a game and choose the scenario to be played. When prompted he will be asked which type of connection will be used, choose IPX play.

The Modem Caller will start the game and choose Modem Caller. When prompted he will also select IPX play and when prompted select the *Rising Sun* game.

Note that all multi-player features discussed above in the "Internet TCP/IP Play" section (i.e., multi-player Comm Dialog and Timed Game) are also available during a multi-player "LAN" game.

## MODEM AND SERIAL CONNECTION PLAY

You can use this connection to play over a modem or by a direct serial connection (also known as a null modem).

The Modem Host will begin a game and choose the scenario to be played. He will be prompted for which type of connection will be used during play. Choose the appropriate connection and enter the necessary settings.

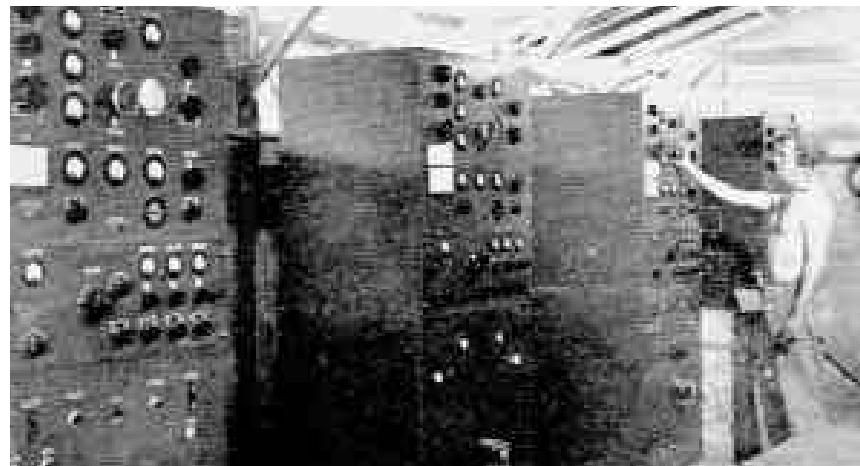
The Modem Caller will start the game and choose Modem Caller. When prompted he will also select the type of connection you have and enter the appropriate settings or phone numbers.

## TWO PLAYER HOT SEAT

If you have a local opponent who doesn't have a computer or you want to play on the same computer, you can use the Two-Player Hot-Seat option. Note that Fog of War is automatically in effect for both sides.

To begin a Hot-Seat game follow the same procedure as beginning a regular scenario, except when you are in the **Scenario Type** screen choose **Two-Player Hot-Seat**.

Once the scenario begins, the person playing the First Side will be prompted to begin his turn. When that player has completed his turn, click the Next Turn button. The map will clear, and the other player will be prompted to begin his turn. Continue in this manner until the game is completed, or you need to break and save the game. **Note:** Two-Player Hot-Seat saved game files are saved with the extension *.btt*.



## PLAY BY E-MAIL

### To Start a PBEM Game...

1. Select the **Play Scenario** option from the **Main Menu** Screen.
2. When the **Scenario Type** screen appears, ensure that the **Play-by-E-Mail** option is selected, then click on the **Start a New Game** button.
3. The **Scenario** Screen will then appear. Choose the scenario to be played.
4. When the map appears, choose the local side (i.e., the side you will play) and whether or not Fog of War will be used. You can also set the Advantage and Optional Rules at this point (note that once a PBEM game has begun, the Optional Rules & FoW settings cannot be altered). Then select **OK**, and proceed with play.
5. When finished with your turn be sure to press the "End Turn" Tool Bar button (or select **Next** from the "Turn" pop-down menu). You will then see a message that local control is over. You will be prompted to save the game (note that it must retain a ".bte" extension) and E-mail the saved-game file to your opponent (veteran PBEM gamers usually "zip up" the file to protect the data). You will then be prompted to enter an "Encryption Key" (i.e., a password). If you elect to input a password be sure to remember it, as it will be necessary to input this before you can start your next turn. Keep the password simple; it is wise to use the same password for all on-going PBEM files.

**Be sure to end your turn!** Not ending your turn, and then sending that file to your opponent, is the most common PBEM error.

### To Resume a PBEM Game...

1. To resume a Play By E-mail game, you must download the file into the *Rising Sun* directory.
2. Then launch *Rising Sun*.
3. Select the **Play Scenario** option from the **Main Menu** Screen.
4. When the **Scenario Type** screen appears, ensure that the **Play-by-E-Mail** option is selected, then click on the **Resume Saved Game** button.
5. When the **Scenarios** screen appears, select the file you wish to resume and click **OK**.
6. After the map and scenario are loaded and you have input your password, you will be given an option to see a "Replay" of your opponent's most recent moves/attacks. After the Replay is finished (or if you choose not to view it), the next phase begins and play resumes. At the end of local control, a prompt to E-mail the file will appear.

The same procedure is followed to play the remainder of the game, with each player alternately playing and E-mailing his turns to his opponent.

**IMPORTANT NOTE:** Never attempt to play a PBEM game unless you are certain that both players are using exactly the same game version. Your game's "version" number can be found by selecting **About...** from the **Help** menu. For instance, "version 1.01" and "version 1.01a" are **not** the same version. When in doubt, come up to the discussion page and ask the experts.

## VIII. Appendices

"I went through the whole *Rising Sun* tutorial and, even as an experienced "Campaign Series" player, I learned some things that I did not know about or had forgotten."

Fred Schwarz, veteran Campaign Series playtester

"The *Rising Sun* tutorial guides you through the first turns, touching on areas a beginner needs to know. I found it valuable even for us older gamers that tend to forget the basics at times."

Ernie Berg, veteran Campaign Series playtester



### Rising Sun Tutorial

Copy by Glenn Saunders (thanks to Ted Cardwell for Proofing); Scenario by Doug Bevard  
...Wakde Island, somewhere in the South Pacific, 200km WNW of New Guinea, 17 May 1944.

#### Orders Group!

Alright Guys! Listen up! Everybody has to take a turn doing an amphibious operation. So, our task today is "Storming Wakde Island"!

While United States soldiers and marines under Admiral Nimitz struggled to perfect the art of amphibious assault through the Central Pacific in early 1944, to the southwest General MacArthur continued the island hopping campaign toward the Philippines. Once the Japanese expansion had been halted in 1943, MacArthur's ultimate objective, other than the final defeat of the enemy, was the liberation of the Philippine Islands. To that end every opportunity was taken to rotate troops through amphibious landings to build an experienced force for the coming battle. For the assault on Wakde Island, just off the northern coast of New Guinea and a prelude to the attack on Biak, it was the turn of the 41st Infantry Division's reinforced 1st/163 Infantry Battalion under Major Wing. Waiting on the tiny fortified island with its single airstrip were elements of the 3rd/224 Infantry Battalion, ready and willing to teach the American GIs the lessons of amphibious warfare and island clearing as only the Japanese could.

### Welcome to TalonSoft's RISING SUN!

As with any tutorial scenario, the main purpose of this one is to introduce players to the game. Even wargamers who have already played TalonSoft's other *Campaign Series* games, *East Front II* and *West Front*, are encouraged to try this scenario first. Experienced *Campaign Series* players will feel right at home with the game interface. However, there are a number of changes to the system designed to reflect the unique aspects of the war in the Pacific. In this tutorial we will endeavor to introduce many of the alterations which were made to adapt the *Campaign Series* game engine to the Pacific. Along the way we will also try to provide you with as much insight as we can into how best to play *Rising Sun*, and so further your enjoyment of the game.

#### Getting Started

Veterans of *East Front II* and *West Front* can flip forward, and begin at the section entitled "**Transport Units—the Amphibians**" located on page 123.

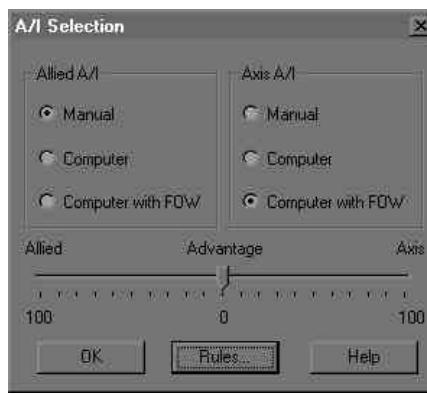
To play the tutorial, you will first have to load and run *Rising Sun*. Once the Main Menu screen has opened, press the **Play Scenario** button. This will take you to a "Scenario Type" menu where you pick the type of game to be played. In this case, you need to leave the check mark in the "Standard" box, then click on the **Start a New Game** button.



You will find yourself at the "Scenarios" screen. By default, the scenarios are listed in order of "complexity", with the simplest (level "1") scenarios listed first. From here you can select which scenario you wish to play. In this case we want to choose "**Tutorial—Storming Wakde Island**". Locate this scenario by scrolling down through the scenarios using the arrow buttons on the right side of the list. The buttons with the "double arrows" will move up or down the list a screen at a time, while the single arrow scrolls one scenario or one line at a time.

A brief historical description (or "overview") of the battle appears in the window below the scenario list. The single arrow to the right of the overview scrolls the text and allows you to read all the background information on the battle. It is always a good idea to review this information before you begin to play, as it sets the stage for the battle. At the beginning of the overview is a recommendation on how the scenario is best played; i.e. "Best played as Allies," for example, when the scenario has been balanced for play as an "Allied Human vs. the Axis Computer".

The “Scenarios” screen contains other information such as Complexity, Date and Number of Game Turns. The default setting for the sort order is “Complexity,” so that when you start the game the scenarios will be displayed with the smallest scenarios first. If you press the button next to these other fields, the scenario list will be re-sorted on this data. Re-sorting the scenario information takes a moment. So, please be patient.



With **Tutorial-Storming Wakde Island** selected, click the **OK** button at the bottom of the screen. The game will load, and an “A/I Selection Dialog” will be displayed. The Allies will be shown to the left of the dialog, and the Axis to the right. For this tutorial, leave the Allies set to **Manual** and select the **Computer with FOW** for the Axis (“FOW” stands for “Fog of War”). Under this condition, enemy units that have not been spotted by your units may remain hidden from view, even if they are within your “Line of Sight” (LOS) as long as they haven’t fired.

At the bottom of this dialog in the center is a “Rules” button. Press this button now. For the tutorial, you should leave all options **OFF** (no checkmarks). The **Indirect Fire By The Map** allows you to target unseen hexes for artillery. **Extreme Fog-Of-War** will affect what you will see in terms of Unit Strength and Unit types. The **Armor Facing Effects** rule provide different defense strength for hard (armored) targets. The **Command Control** optional rule introduces “supply” and command control effects and generally encourages players to keep platoons of the same company in relatively close proximity or a penalty will apply.

The effects of the Optional Rules are discussed in detail on page 83-84. Please note however that you may want to consider not using the **Armor Facing Effects** optional rule during a game vs. the computer (i.e., “you against the computer”), as the Artificial Intelligence (A/I) is not programmed to consider facing effects. Thus, having this rule “on” would give you a slight edge.

While a game is in progress, you can view the Optional Rules in effect, but you can’t change the selection. Later, you may decide to change these Optional Rules for other scenarios. However, the settings are fixed for a particular battle once a scenario has been started. Also, once you have defined the Optional Rules you wish to use, these settings are automatically retained for the next scenario you play. Click on the **OK** button in the Optional Rules dialog, and a second **OK** button in the A/I Selection dialog to proceed.



Your computer will now load the scenario and a map will appear on your screen followed by a turn information dialog called the “Command Report.” The “Allied Command Report” on turn 1 of the tutorial will report that “\*Reinforcements have arrived\*” and “6 air strikes remaining”. We’ll come back to the reinforcements later during turn 1, and discuss air strikes later in the tutorial.

From time to time, you will see other information displayed in the Command Report. What is shown depends on the circumstances prevailing within the game at any given moment as you are playing it. Items may include releases of fixed units, updates on Improved Position construction, HQ’s “Out of Supply,” artillery units not available, units “Low On Ammo,” number of units undisrupted out of the number of units checked and units that have been isolated.

When you have finished reading the “Command Report,” click the **X** in the top right corner of this dialog or press either the **<Enter>** or **<Escape>** key on your keyboard to make the report disappear.

Next, a “Turn Progress” box will appear. This dialog tells you which side is about to move/fire, what turn number it is and how many turns are in this scenario (i.e., “Turn 1 of 25”). Click anywhere on the box (or hit **<Enter>** or **<Escape>**) to make it disappear.

**IMPORTANT:** One final note on the conventions used throughout this tutorial. When we say “click” we mean **LEFT** click with the mouse. Some game functions require a **RIGHT** click, and in those cases the instructions will specifically say **right click**. We are, of course, assuming a standard mouse button set-up.

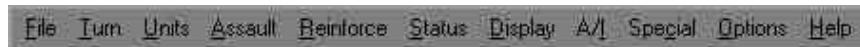


### The Lay of the Land—Map Navigation

With the scenario loaded, and the initial game info boxes removed, part of the map will be displayed in a large scale “3D Normal View.” You will have a Tool Bar along the bottom of the screen, which will be used to access many game functions.

Under the Tool Bar is a Status Bar that displays the Nationality Symbol of the current player, a bar graphic showing the current turn and total number of turns followed by the number of smoke rounds remaining. Also, in the lower right corner of the Status Bar you will see the map co-ordinates of the currently selected hex. The two numbers represent the row number and then the hex number in that row. The tutorial will frequently refer to the hex co-ordinates. So, take a moment and click on the map in various locations, and note that the hex location as seen in the lower right corner of the screen will change.

In addition to the toolbar, TalonSoft has also built into the game system an extensive list of shortcuts or "Hot Keys" that allow quick access to common game features and a menu (not visible at this time). For a list of the Hot Keys, consult the back cover of your *Rising Sun* Players Guide. While the list may seem long, there is no need to memorize it. Veteran players of this game system have found many of them useful, and, after a short time, some of them may become second nature to you. In this tutorial, we will use several Hot Keys.



To illustrate the use of Hot Keys, push the **M** key on your keyboard. This will make the Menu Bar appear along the top of the screen. If you already had the Menu Bar visible, pressing **M** would make it disappear. Pushing the **M** key repeatedly simply toggles the Menu Bar on and off. Most "Hot Keys" function like toggle switches, turning on and off different game functions. As you will usually need to access some menu items from time to time during the game, it is best to leave the Menu Bar displayed as you play. More information about the menu functions can be found on pages 10-17. Alternatively, general help on menus can be found under the "Help" menu item or by pressing the **<F1>** function key.

Now, let's look at the various game Map Views. When the game is loaded for the first time, the default map view is "3D Normal". This is as close up to the action as you can get in *Rising Sun*. Using the number keys across the top of the keyboard, press the **2, 3, 4, and 5** keys in sequence to load the "3D Zoom-Out View," "Extreme 3D Zoom-Out View," "2D Normal View" and "2D Zoom-Out View" in sequence. You also have the option of changing the view from the "Display" menu.

The first time you load each "Map View," expect a short delay. Please allow your computer a few moments to load each map view before pressing the next number. Once the map view has been loaded into memory, changing the map view should be much faster. Loading each map view at the start should also begin to give you the overall "lay of the land" for your scenario. Press the **1** key to return the map to "3D Normal View."



As you cycle through the maps at various scales, you may notice the "Objectives" which are seen as yellow ovals. At the start of this scenario, these are all Japanese controlled. Allied controlled objectives would be tan or green depending upon which Allied nation (UK/Commonwealth or U.S., respectively) holds the objective. If you did not see the objectives as you cycled through the various map views, zoom out to "2D Normal" (the **4** key) to cover a wider area, then check that **Objectives** are selected from the **Display** menu. You can also use the **O** hot key to toggle the Objectives ON and OFF noting where they appear. Objectives have different values, and, at the end of the game, will count toward victory for the First Player. It is best to leave the objectives toggled on while playing.

With the map in "2D Normal View," press and hold the **<Shift>** key. This displays the labels naming various features on the map such as villages, roads and rivers etc. You will find a "Compass Rose" on each 2D map view, usually in one of the corners (see the top left corner on the tutorial map). This will orientate you to north and the points of the compass. It is important to note that the top of the map is not necessarily north. In this scenario it is, in fact, north. As a further aide to assist you in locating where a battle occurs, some labels may have been placed along the edge of the map giving you the distance and direction to other well known islands or places.

Return your map to "3D Normal View" by pressing the **1** key. Move your mouse to the top of the map—all the way up—and notice how the map display scrolls. You can scroll the map in any direction using this "auto-scroll" technique, simply by moving your mouse "against the edge" of the screen in any direction. Use your mouse to scroll around the map now. Hold the **<Shift>** key and scroll around the map until you see the labels. Note that map labels are visible in all map view modes.

You may note that you can see your own troops, but may not be able to see any enemy units. *Rising Sun* uses a formula to determine whether enemy units that have not fired have been spotted. The net result is that, at the start of this or any other scenario, you may not see the enemy when the game begins. However, you may see game counters such as Trenches, and Improved Positions (IPs), and you may assume that the enemy occupy them, although you don't know for sure. You may also infer from the location of Objective hexes where the most likely enemy position will be. Finding the enemy is part of the fun.

#### Your Force—Finding, Displaying and Selecting Units

At this time we need to use a button located in the Tool Bar at the bottom of your screen. Move your mouse cursor over the buttons and a brief description or "Tool Tip" will appear above each and a descriptive line will appear on the status bar below. Toward the right side of the toolbar is the **Jump Map** button. It looks like a small map with a red square outlined on it. Click on this button now. A thumbnail view of the battlefield will appear.



The Allied units are shown on the "Jump Map" as small blue squares. On the bottom center of the "Jump Map" you can see a group of blue squares in the water. These represent your force in this scenario. You might not see any Axis units at the start of the game. But, if you could, they would be displayed as blue squares. Click on the area around the blue squares and the main map will "jump" directly to that area letting you see your unit icons on the 3D Normal map. You

can click anywhere on the "Jump Map" that you wish to move to. This feature is especially useful in scenarios where the map area is very large.

Roam your cursor over your units. Notice that as the crosshairs pass over a unit the icon is highlighted and an "Info Box" is displayed superimposed over the map. The Info Box changes as a new unit is "roamed over" and highlighted. In basic terms, a unit's Info Box contains a sketch of the unit, the name of the unit in a label at the top of the box and several game information factors.



and, while holding down the mouse button, dragging the box to a new, more convenient, position.

Units occupying the same map location (or hex) can be displayed together using the Unit List rather than a single Info Box. Press the **U** key now to bring up the Unit List along the right side of the screen. Below the last unit displayed in the list are several other pieces of game information. Consult page 25 for further details on the Unit List. Since there is so much information displayed in this panel, veteran players usually leave the Unit List on while playing the game.

When the Unit List is on, there are other ways to **select** units. You can still click on the 3D Icon on the map as described above. Another method is to click on the unit as it appears in the Unit List. When selecting or unselecting a unit, do not click on the numbers shown in the value polygons that are outlined in color in the unit box. Clicking in these areas controls other features.

Yet another method of selecting units is to **double click** on any group of units that are in the same map location. All units in the hex will be selected with a **double click** on that hex.



the hex co-ordinates of the selected units is 7.19.



120 TalonSoft's rising sun

## Your Units—Not All the Same

In *Rising Sun* you will find that not all units are created equal. Each unit is normally suited for a particular function. In this particular scenario, most of your starting force begins the game loaded on transport and positioned in the water hexes. If you are familiar with TalonSoft's *West Front* you may have faced similar beach invasion situations. However, looking closely you will see many new types of amphibious units here in the Pacific. Furthermore, you will find a few different amphibious situations facing you on this front. Reefs are among these, and will be discussed a bit later in this tutorial.



In this section we will focus on the units. However, before proceeding any further, click on the **Toggle Bases** Tool Bar button (to the left of the Jump Map button).

With this button pressed, each friendly icon or visible enemy unit will have a colored base with an appropriate nationality symbol. This makes your units stand out on the map background. Selected or highlighted units have more prominent bases. Turning the bases "on" may appear unnecessary with them being so visible in water or beach hexes. However, if you look around you may see that you have one rifle unit in a hex with palm trees. This unit blends in so well that it would be difficult to see without the bases "on". Furthermore, as the hidden enemy units begin to show themselves during the course of the battle the colored bases will help you to keep track of them all.



Toggle your bases ON and OFF while looking at the Rifle Platoon in hex 11,21. See how you could have missed it without the base? Leave the unit selected, and we will examine the available information on this platoon a bit more closely.

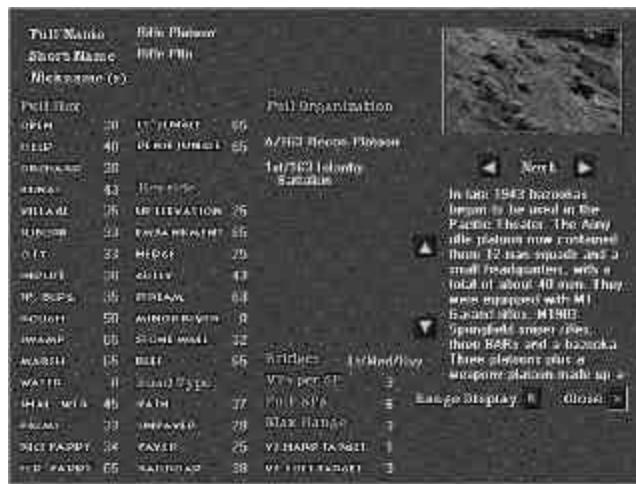


Next, click *inside* the area of the green-outlined strength polygon near the top of that Rifle Platoon's Info Box. A green bar is displayed across the bottom of the Info Box which shows the effective *strength* of the selected unit. The bar in this case does not extend completely across the bottom of the Info Box. This informs you that the selected unit is not at full strength. You can click on the Morale value (the blue polygon to the left of the Strength, in the "10 o'clock" position) or the Action Point value (the red polygon to the right of the strength, in the 2 o'clock position), to switch the bar at the bottom of the Info Box to display these other unit parameters with a blue or red bar (respectively).



Press the **T** key and whichever bar graph is currently being shown in the Unit Box is displayed as a small horizontal "thermometer" along the bottom of each 3D icon on the map. The thermometers can be red, green or blue, depending upon whether or not it is showing remaining Action, Strength or Morale points (respectively). These can give you a very quick look at the current status of your units. Using the red Action Point (AP) thermometers can tell you at a glance if a unit has AP's remaining in the turn.

There is no single, fixed terrain movement cost chart in *Rising Sun*. The game system is based on **Action Points** (AP's), with each unit having 100 AP (at the start of each turn) and its own individual terrain cost chart for each particular ground condition (Normal, Soft, Mud, Snow, depending on the map's "region"). This movement cost chart and other information can be seen in the Unit Handbook that is accessed by pressing the **<F2>** function key while a unit is selected. Select the Rifle unit in hex 7,19, and press the **<F2>** function key to display this information.



On the right side of the Unit Handbook is a brief description of the unit. As most of these historical descriptions scroll off the bottom of the window, you need to "Page Down" (using the **Page Down** key, or the down arrow to the left of the text) to read all the information. Unit weight and weapons information is listed at the end of the unit's historical copy. Notice the left and right arrows under the unit picture (above the unit write-up). These allow you to scroll through the data on other units in the database.

At the bottom center of the Unit Handbook you will see the Max Range vs. Hard Target and vs. Soft Target values. Next to this information is the phrase **Range Display** with a small button (with an **R** on it) just to the right of it. Press this button now.



A small graph is shown with ranges in hexes on the X-axis and fire factors on the Y-axis. There are two "curves". The red curve shows (as a bar graph) the selected unit's Attack Strength vs. Hard Targets, and the blue curve shows its Attack Strength vs. Soft Targets. To remember which curve is which, just keep in mind that the defense strength of a

hard (armored) unit is shown as a red value in the Unit Info box. Thus, the red curve shows the fire effect for the hard targets.

Press **<Esc>** or **<Enter>** or click on the graph to make it disappear. Press **<Esc>** or **<Enter>** a second time or click on the small **X** button next to the "Close" caption at the bottom right of the dialog box to close the Unit Handbook.



You are now back looking at your units in the center of the map. Ensure that the Rifle Platoon in 11,21 is still selected, then locate and press the **Display Range** button on your toolbar (or press Hot Key **Z**). This button is near the right side of the Tool Bar, and has a hexagon on it with a red and a blue line. Remember that the buttons have tool tips. So, if you place your cursor on a button and wait, the tool tip will appear and some additional information will be displayed on the Status Bar (beneath the Tool Bar).

You can see on the map the blue circle representing the area in which you can fire on Soft (non-armored) targets. Soft targets will be the most common units you face in battles in the Pacific. Press the button again to remove the "range rings."

In addition to the Unit Handbook and the "Display Range" button, there are tables with the Unit Data and the Weapons Data to be found under the Help menu. Alternatively, you can access these tables with the **<F4>** and **<F5>** function keys. Reviewing the information in the Unit Handbook will assist you in picking the best unit available for any task in the game.

### Transport Units—the Amphibians!

In *Rising Sun* it is common to have combat units transported by other units. The simplest example of transport is, of course, men loaded into trucks or trucks towing artillery pieces while simultaneously carrying the gun crews and ammo. In the Pacific, the transport concept also extended to many different "landing craft" and "amphibious" vehicles. This tutorial scenario is no exception when it comes to units being carried on many different types of transport.

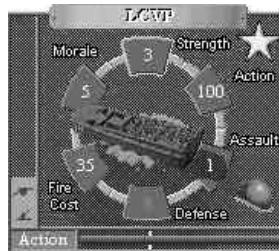
With two exceptions every Allied unit visible on the map at the start is a transport unit. All the transports in water hexes are carrying other units. Look at any of the units in the water and notice the full colored helmet in the lower right corner of the unit info box. The full-color helmet tells you that the transport is loaded, and, therefore, carrying some other unit.



To see what your transports are carrying, first click on a unit or a stack of units. For the purpose of demonstration, click on the group of units bringing up the rear of your force in hex 7,19. Now, **right click on the Unit List** and hold the mouse button down to view the units being carried by these LCVPs. In this case, you see the transports are carrying a Battalion HQ, a full strength (6 SP) Rifle Platoon and a battery of M2 60mm Mortars. Take a moment to look over your other units and become familiar with the your command in this scenario.

Next, select the DUKW unit (pronounced as "duck") in the beach hex at 10,20. On this unit you see the helmet, but here it has a yel-

low outline rather than the full colored helmet. This shows that the transport is unloaded. This empty DUKW unit transported your Rifle Platoon to the island.



As you explore your command, notice the different types of units you have and the assortment of transport units as well. Your combat units are being carried to the island in LCVPs (Landing Craft, Vehicle Personnel), no less than two different kinds of LVT (Landing Vehicle, Tank), an LCM (Landing Craft, Mechanized) and DUKWs (which are trucks that can swim in water). There is even one LVT in your force that is not a transport unit, an LVT(A)1 in hex 9,16. This unit is an armored combat unit that is capable of engaging the enemy from shallow water and then carry on fighting once on shore. As you can see, you have quite an assortment of both combat and transport units!

You may also have noticed that there are several DUKWs in the water and one on the beach. These units are special "amphibians" that can move on land *and* in the water. The LCVPs and LCM units are "boats" that can only move in the water. They can move into shallow water and unload there, but cannot move on land. LCMs are tank transports. LVTs are fully-tracked amphibious vehicles and can move on water or land like the DUKWs. However, fully-tracked units are the only vehicular units that can cross the coral reefs found in the Pacific. Notice the rock/coral formations lurking along the sides of some shallow water hexes. They will provide you with some interesting situations in this game.

Non-tracked transports (like the various landing craft and the DUKW units) cannot cross these reef hexes and will either have to maneuver around them or unload the units they are carrying in the shallow water in front of the reef. The troops can then struggle across the reefs and on to the shore through the shallow water. Note, however, that units in shallow water are vulnerable to enemy fire and have their own combat effectiveness reduced. Also, units loaded on transport can be very vulnerable. Consequently, the best course of action is to get these units unloaded and ashore as rapidly as possible. *Only the dead or dying stay on the beach!*

It is, however, likely that your units will be fired upon at some point. When this occurs, it is the Defense strength of the unit being attacked that is important. A unit's Defense value is in the 6 o'clock position of the Info Box. The greater the value, the more protection the unit has. Units being transported, however, use the defense strength of the transport itself. Therefore, a Rifle Platoon has a Defense Strength of 7 while on its own. However, when it is loaded aboard a DUKW it uses the 1 factor defense strength of the DUKW!



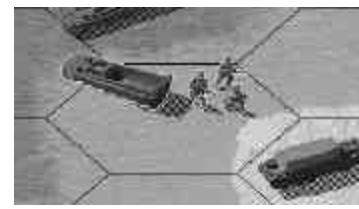
Units being transported in LCVPs are comparatively safe, as this transport has a defense of 8. Also notice that the Defense value of this unit is printed in red, which indicates that it is a *hard* target; "Soft" targets always have their Defense value printed in white. Transport units with hard target status offer very good protection against infantry weapons. The other transports, such as the various LVT(A)2 units ("A" for armored), also have a red, hard-target defensive value, but are rated at a 2 defense strength. However, examine the two LVT units in hex 9,17. Note that the LVT2 unit carrying Capt. Saunders has a *white* Defense strength. It is a non-armored target, and, while it has the same defense strength of "2" as the armored LVT(A)2 version, is more vulnerable to enemy fire

because it is a "soft" target. Always remember that most units in the game have stronger attack strengths when firing on soft targets. As well, units firing on soft targets have a longer effective range against them.

Keep these subtle, yet important, differences in mind when you start other scenarios. Which variety of LVT do you have? Does your transport offer protection for the troops it is carrying or just a false sense of security?

You will also find other differences in these transports. Each unit pays a cost in Action Points (APs) to enter each hex. That cost may differ depending upon the hex. For example, an LCVP will pay 33 APs per hex entered regardless of the water depth. LVTs are slow in the deep water, expending 65 AP's for each dark blue water hex entered, but only 24 APs per hex once it gets in the shallow water where the tracks can help it move.

 The processes of loading and unloading cost both the transporting and transported units some APs, and these costs will vary. Click on the LCVP unit in the shallow water hex (9,20) beside the smaller island. Locate and press the **Load\Unload** Tool Bar button. This is located on the left of the toolbar, and looks like a truck with a couple of men.



Ensure that the LCVP in hex 9,20 is selected, and press the **Load/Unload** button. You will then see another unit, an infantry Rifle Platoon, appear in the hex. You will also note that the number of APs on both units will decrease to reflect the cost of unloading, and the helmet on the LCVP changes to a yellow, hollow outlined image to indicate the unloaded status of the transport unit.



If you were going to load a unit, you would do the reverse. Start with both units in the same hex, select and highlight one transport and one unit to be carried, then press the **Load/Unload** button. In general, the transport unit must have SPs equal to or greater than the unit it is attempting to load. **Note:** A transport unit can carry *only one unit* even if it has "surplus" strength points.

## Turn 1

### "Hey Guys, Wait for Us!"—Reinforcements

You will recall, when you first loaded the scenario you were told that the Allies are scheduled to receive reinforcements during the first turn. Before beginning your move it is usually a good idea to place any reinforcements you may have received on the map to help in planning your turn.

In any military operation, sooner or later something will usually go wrong, and in this case it seems like one of your companies is lagging behind schedule on the run in to the beach. This is represented by your newly arriving reinforcements. Press the **2** key to switch the map to 3D Zoom Out mode. Depending upon your computer, this is a good mode to play in as you can see enough of the map to plan your battle, while still taking advantage of the excellent 3D graphics the game has to offer.



Press the **Show Arrived** button (the one with the “descending” orange arrow, located toward the right side of the toolbar). The “Arrived Dialog” will appear. In this dialog two lines of reinforcements are listed. The numbers at the start of each line list the entry hex of that line’s reinforcement group. **Double click** on each line in the Arrived Dialog to place the reinforcements. As each reinforcement group arrives, the map will automatically center on the location where that group enters. In this case, both groups appear in the lower left corner of the map.

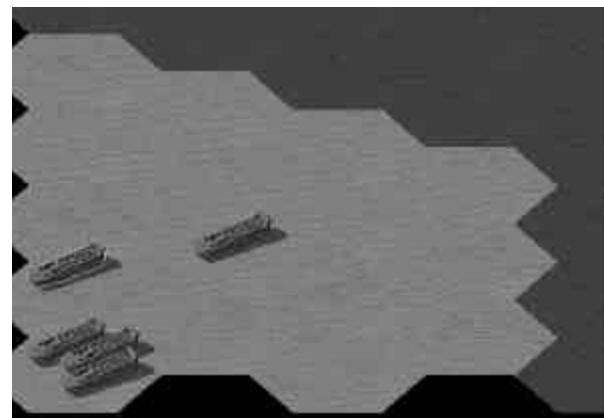
Normally reinforcements arrive on a map edge. However, there are exceptions. Troops could possibly arrive on the map by parachute or glider. They could appear from caves. In some cases, they could appear in locations away from the map edge in accordance with historical conditions. Once you’ve brought the reinforcements onto the map, click the **OK** button (or the **X** in the top right corner) to close the dialog.

You now have your two reinforcement groups placed on the map. Select a single unit from your reinforcements. Next, **right click** on the hex in front of the unit. When a unit is selected and you **right click** on a different hex from the one in which the unit is located, this right click will initiate the movement order and the unit will move to the new location.



Now, select one of the other units in the group. Press the **Reachable Hexes** button (near the right end of the toolbar). Notice that some of the water hexes appear to be light, showing the possible hexes to which this unit can move. You

do not need to click on one hex at a time to move, you need only click anywhere within the lit up area to initiate the movement. Before you do that, locate and press on the “Highlight Organization” button. With one unit selected and this button pressed, all other units in that same formation are outlined in pink.



Now, press and hold the **<Shift>** key and then **right click** on one of the more distant hexes within the reachable hex area. *All* units in this group (outlined in pink) that have not previously moved will attempt to move toward the destination hex while remaining in the same formation. This is called “Echelon Movement”, and is one of two types of organizational movement discussed on page 36 of this Players Guide.

When all these units finish their echelon movement, remember to complete moving the first unit. Move it to a hex with the other units. As you can see, you can move your units in any sequence you wish as long as they have sufficient action points (APs).

### “Sound Planning—Your Key to Victory”

By this point in the tutorial you should have a feel for what units you have available. You know how to move them, what hexes you can unload your transports in and how to unload. The question then becomes, “How can I best deploy the forces at my disposal given the information I have?” It all comes down to planning. Before you begin moving the rest of your units, take a moment to examine the situation and consider your options. Do not think just in terms of *this* turn, but try to think ahead a few turns.

*Where can you move this turn and how can it help you get to where you want to be next turn, and the turn after that?*

To formulate your battle plan, change the map view to 2D Normal by pressing the **4** key. In 2D mode you see the game in a boardgame style with square unit counters. The graphical representation on the unit counters can be switched to the conventional “military style schematic” icons (as shown on page 184 of this Players Guide), by unchecking the **Options|Graphical Unit Icon** menu item.



Next, study the map in 2D mode to gain the “big picture”. Press the **O** key to toggle on and off the objectives (yellow ovals) so as to study the terrain with and without the objectives visible. Note that each objective has a point value, and not all of them are equal. The main mission in this scenario is the capture of the 75 point objective in hex 30,6.

You may want to send some units toward all the objectives, but you need to stay focused on the more valuable ones or the areas with several objectives close together. Units in *Rising Sun* are generally not as mobile as those you may be familiar with from other "fronts". You may not see any enemy units at start, but you do see some Trenches and Improved Positions. You can safely assume they will be occupied.

 The first problem is to get your units ashore while suffering as few casualties as possible. To begin planning, start by selecting a single type of unit and use the **reachable hexes** button to see how far it can move in this turn. Remember that the boat units (non-track or non-LVTs) cannot cross the reef hexsides. Further, the LVTs are slow in the deep water (dark blue) hexes. Select various units in a number of hexes noting how far each can move.

The LCVPs are fast. These, perhaps, should move toward the Wakde village and the jetty where they might be able to overcome the defenders by storm. The LCVPs, being "hard" targets, offer good protection for the units they carry. So, if this area turns out to be bristling with the enemy, they should be able to survive and make a fast getaway next turn if necessary.

The LVTs are slow while in "deep" (i.e., non-shallow) water. These units need to reach the shallow (lighter blue) water hexes where their mobility greatly improves. Therefore, their effort should focus on clearing the trenches west of Wakde Village. As they can cross reef hexsides, they will be able to protect the troops as they carry them right up to the Japanese defense positions.

Your DUKWs, on the other hand, are a concern. They are slow, and the units aboard them are very vulnerable! With them you are advised to head for the shallow water and unload as soon as possible. These transport units will be very valuable as transport assets once on shore. They are, after all, trucks. But, for now they are (pardon the pun) *sitting ducks*!

Once you have determined where the enemy is located and how strong he is, your reinforcements bringing up the rear can support whichever groups need the help most. *Prepare to move them forward!*

Wakde Village Jetty Dead Ahead—Beach in 6 Minutes—

STAND BY!!

Before you start your move, press the **1** key to return the map to 3D Normal View so as to appreciate the great 3D graphics this game offers.

With your lead LCVPs in hex 15,17 selected, **right click** on hex 18,15 (the shallow water hex beside the jetty). With this right click the units will move to the new location. Move the next group of LCVPs, the two units in hex 14,17, as far as they can move toward the jetty. This should place them in the deep water hex 17,16.

 Use care when checking the "reachable hexes" with the units in hex 14,16. There are two different types of transport here, and they have very different movement capabilities. There are several options with the LCVPs in this hex. Select the two LCVP units only, and ensure that the **Reachable Hexes** button is still "on". Next locate and press the button **Save AP's for Unloading**. Notice how the "reachable hexes" area shrinks and a dark circle appears in the top left corner of the info box. The game has reduced the distance these units can move this turn, and, in doing so, reserved the amount of APs needed to unload the units at the end of the move.

Now unselect the 6 SP LCVP leaving only the 4 SP unit selected. Notice what happens. See how the reachable hexes area shrank again. Unselect the 4 SP unit and select the 6 SP one again. The reachable hexes area expands. Right click and hold on the Info Box to see what is loaded in these transports. What you are seeing illustrated here is that the HMG unit in the 4 SP LCVP requires more APs to unload than does the Rifle Platoon in the other transport, and that, therefore, you cannot move its carrier as far as the other and still unload it this turn. See, *I told you to be careful!*

*Now, Sir, I have noticed that in considering your plan, the discussion turned to the idea of storming the jetty. Do not lose focus on this goal while rushing to unload those fast transports. On the other hand, the HMG unit may be able to offer the troops some covering fire next turn. Think ahead!*

 Take the 4 SP LCVP unit, move it one hex up to the shallow water hex 14,15, and press the **Unload** button. Your HMG unit is unloaded and will be in position for next turn. Notice that the Morale rating on the unit info box for this unit is a white number with the value 5. Next,

select the LVT carrying Captain Bevard from the adjacent hex, move it to and unload it in the hex with the HMG. Notice the Morale of the HMG has suddenly improved. The value has turned red and increased to 8, the same value that Captain Bevard has for his Leadership rating. This is obviously a fine officer whose very presence stiffens the resolve of his men. Leader units provide other benefits in addition to improving unit morale. These are discussed later in the tutorial and on pages 74-75 of this Players Guide, as well.

With the 6 SP LCVP in hex 14,16 selected, press the **Save APs for Unloading** button once more so that all the APs are available for movement.

Now, right click on hex 17,16 (where the other LCVPs are located) to move this unit. Also move the two LCVPs in hex 14,17 to hex 17,16.

Next, select the two DUKW units in hex 13,17. Press the **Reachable Hexes** button and try "Save AP's for Unloading". This will confirm for you the "DUKW dilemma". You cannot unload them in the hex where they start the game. You cannot move and unload them in this turn. In fact, you have very few options. Move them to hex 13,15, where you can unload the DUKW-riding leader. Hopefully, the enemy units that may appear will fire at the less-vulnerable HMG unit in the adjacent hex.

The LCVP carrying the mortar in hex 12,17 can reach the deep-water hex 15,16 beside the HMG. But, once again you have other choices you could make with the DUKW in that hex. DUKWs can only move one hex per turn while in deep water. Therefore, moving toward the jetty is a very slow option. Furthermore, it will take this unit two more turns to reach the hex where your HMG is positioned. Alternatively, this DUKW could move along the shore of the smaller island and reach hex 15,18 this turn.

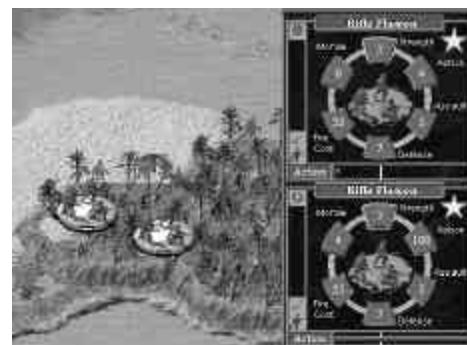
## Which Option is Best?

There is no correct answer to this question. But, you can see where planning is so important. If you decide to move toward the HMG, it commits the unit to deeper water and fewer choices next turn. But using the faster route along the island may not position the unit where you might want it next turn. Sooner or later you will have to make these decisions for yourself, so you may as well start now. *This unit awaits your orders, sir!*

Move the balance of the forces at your own discretion keeping in mind the plan you discussed above. Move the LVTs toward the shallow water to the left of the HMG. Next turn they can cross the reef and press forward toward the trench position to the right of the swamp. The remainder of the landing craft should move as fast as they can toward the jetty.

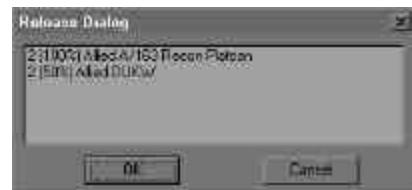
## You're Almost Done!

After your landing craft have moved, press the **2** key to view the map in 3D Zoom out mode. Turn **OFF** the **Reachable Hexes** and toggle **ON** the bases if they are not already on. Press your keyboard's **T** key to turn on the "thermometers". Click on the red AP section of any unit info box to toggle the thermometer display to show action points. If you have any units with surplus action points, they can be easily spotted by the red in the bar graph. A quick look reveals there are some units to be reconsidered. See *how fast and effectively the thermometers can be used to double check for unused or under used units?*



Captain Bevard and his transport have APs remaining, but they are positioned where we want them to be for next turn. Leave them where they are. The Rifle Platoon you unloaded in hex 9,20 still has remaining APs. Move it further up the beach or inland as far as it can go. The empty transport can stay where it is for now. Next, examine the other Rifle Platoon and DUKW on the small island. It has all of its action points available, but if you attempt to move the

unit it remains in place. Notice that this unit has a solid red circle with a white "F" in the top left corner of its Info Box. This unit is "**fixed**". A "Fixed" unit cannot move until it has been "released" by the game or is attacked by an enemy unit.



From the menu, select **Reinforce|Releases**. This opens a "Release Dialog" that displays on the first line "2 (100) Allied A/163 Recon Platoon". This indicates that on turn 2 this "fixed" unit has a 100% chance of being "released". This turn, however, it cannot move. On the second line a DUKW unit is referenced. It

may release on turn 2, but it has a 50 % chance of remaining fixed. More information on fixed units can be found on page 37.

With all your units' action points expended, there is little left to do in your first turn. From the menu you may wish to **File|Save** periodically as you play your game. You may want to press the **1** key and ensure that the Reachable Hexes button is off so that you

can better view the Computer's turn in 3D. If, like me, you are prone to pressing the **Next Turn** button accidentally as you play, you may wish to note the menu setting **Options|Ask before advancing Turn**.

 When you are satisfied that you have done all you want to during your turn, press the **Next Turn** button. It is the last button on the right side of the tool bar.

## The Computer Opponent's Turn

After pressing the "Next Turn" button, you will see a "Turn Box". Click on the box or hit the **<Enter>** key to continue. The Computer will begin its turn.

The computer opponent in *Rising Sun* is very unpredictable, and it will be impossible to say exactly what has transpired during the Axis turn. A machine gun nest overlooking the approach to Wakde Island likely will have opened fire, and, perhaps, caused some damage. It is a fair bet that the Computer Opponent has also called for Artillery (Indirect) Fire. This won't arrive until next turn.

During the enemy phase it is wise to listen to the game sounds, as you may hear shuffling feet long before you see the enemy infantry moving toward your positions. You can hear the difference between various artillery units, so you can gauge if the fire you are receiving is from a light mortar or heavy artillery. On this phase, however, the Axis should have been fairly dormant. Don't count on that lasting for too long. The scenario has been designed to simulate a degree of surprise being attained by the Allies.

*The Japanese computer opponent will rise up and give you more of a fight as the game progresses. You can trust me on that!*

## Turn 2

### Lick your Wounds and Move On!



After the Computer has ended its turn, you will see the Allied Command Report. This will announce the "release" of at least one fixed unit (the Rifle Platoon on the small island); 3 air strikes remaining; one HQ unable to provide Supply and possibly a message regarding units disrupted by fire and recovered from disruption effect. These will be discussed later in this tutorial. Click on the **X** in the top right corner or hit the **<Enter>** key. Another Turn Box will appear telling you it is now the Allied Player turn. Once again, click on the box or hit the **<Enter>** key to continue.

As much as "planning, planning and more planning" is a way of military life, there is also a saying among Old Soldiers that, "all battle plans go out the window as soon as the first shot is fired". Rarely do events unfold exactly as planned. At the start of your second turn—in some sectors, at least—the battle may have begun. Some units may have been disrupted or have suffered losses, and some of your units may even have retreated. All this has happened somewhat out of your control.

First things first. *Did you see any combat results while the enemy unit(s) were firing at you?*

If not, go to the **Options|Details**. A cascading dialog will appear, and you can select "Medium Details". This will provide you with an indication of future firing results. Next,

determine how many SPs you lost in that round (if any). From the **Status|Victory...** menu you will get a gross count of the total number of SPs and their point value as lost to this stage in the scenario as well as a similar indication on any enemy losses. You can view the losses with more detail from the **Status|Strength...** dialog.

At least now you can see some enemy units with the red "Rising Sun" bases. However, some enemy units may remain hidden even if the hex they occupy is within your Line-of-Sight (LOS). *Rising Sun* uses an algorithm for LOS/Concealment that compares the size of the unit to the concealment value for the terrain the unit occupies. The computer then makes a die roll using this information to decide what, if anything, is visible. You may see some units and miss others. The bottom line is that nothing is certain in *Rising Sun* when it comes to spotting the enemy.

In your second turn you will have the chance to return fire. You are not limited by any set sequence of events. *You can move and fire your units in any order or combination you wish* until you have run out of APs. Begin with a shot from that HMG unit and Captain Bevard in 14,15. Obviously, our goal with the fire is to cause damage to the enemy. More specifically, you are trying to reduce his firepower by eliminating strength points or by causing a disruption effect. Either result will help you since a disrupted enemy unit will fire with less effectiveness.



Select the HMG unit and press the button that toggles between fire and move mode (the one on the extreme left end of the toolbar). The cursor changes from a crosshair to a crosshair with a circle and the game is now in **Fire Mode**. You can now *right click* on any enemy unit in range to fire. Many veterans of this game system, however, prefer to leave the game in Move Mode and instead **hold down** the **<Ctrl>** key to put the game *temporarily* in Fire Mode. This can prevent accidentally ordering a unit to advance toward an enemy when you really meant to fire.



The "9" tells you that the fire is using the soft target values. This means that each SP of the firing unit will place fire on the target using 9 SPs. (Note: If the Japanese MG unit fired on the HMG and caused a Disruption result, the numbers reported in the above description will be different). More information on Fire Factors can be found on page 40. Also, consult the **Help|Parameter Data** (or press the **<F3>** key) to see a copy of the Combat Results Table. Also note that infantry units firing from shallow water hexes do so with only half of their normal strength points.

With the HMG selected and the **<Ctrl>** key held down, right click on the Japanese unit to fire. There is no certainty of any results as the computer performs a die roll to resolve combat. The shot may have had no effect or it may have caused a disruption, a retreat, a strength point loss or possibly even the complete elimination of the Axis unit. Notice that after the shot is made, 35 APs have been deducted from the HMG's total remaining APs. This is the AP it cost to "fire" the HMG platoon. There are still enough APs remaining to fire this unit a second time if you wish.



First, however, also notice that the remaining APs on Captain Bevard have been reduced. A leader is automatically used to "direct" the fire if stacked with a unit he can influence. In fact, this leader's "Command Rating" of 2 (which is shown in the 12 o'clock position of his Info Box) was automatically added to the HMG's fire factor, resulting in the 9 fire factors mentioned above. Had Captain Bevard *not* been in the hex, or been there without sufficient APs to enable him to influence the HMG's action, then the HMG would have had only 7 firepower factors. You should also bear in mind that a leader can only influence the actions of a unit which is subordinate to him in the chain of command. A company-level leader, for instance, can influence the actions of the units of *his own company*, but cannot similarly affect the actions of units belonging to another company.

In *Rising Sun* not all leaders are represented by game units. Only exceptional leaders are shown. For a leader to exert any influence over a unit, he must be in the same hex as that unit and, as noted above, he must be from the same organization. Remember that an company commander will not affect the units of a different company. To see the units over which a particular leader can exert his influence, select the leader and then press the "Highlight the Organization" button. Generally, the higher the rank of the leader and the higher in the organization he is, the greater the number of units upon which he may have an impact. Captain Bevard, for example, can influence all the Allied units in this particular scenario. Other leaders will be more limited with respect to how many units they can assist. You should also note that leaders can perform other functions as described on pages 74-75.

For now, take that second shot with the HMG (and leader) to try and suppress that MG position. Next, presuming that they were not eliminated by enemy fire in the last turn, unload the DUKWs in the shallow water hex beside the MG. Move the unloaded troops forward toward the beach, and move any undisrupted DUKW units back into the deep water. You should keep in mind, and you may notice here, that disrupted units pay double cost to move and cannot advance toward the closest enemy unit. If you can, spread out your DUKWs into separate hexes. It would be a good idea to put them in different hexes as next turn there will likely be incoming artillery fire. You don't want to leave all your ducks (*I mean DUKWs!*) just sitting in one hex.

The final step in this sector is to advance the LVTs, moving them closer to those trenches. No need to unload the troops yet. Just advance toward the enemy.

## Storm that Jetty—Let's MOVE !!

There may not have been any firing in the vicinity of Wakde village and the jetty. It is possible the enemy has decided to remain hidden rather than risk firing at the units protected by the LCVP armor plate. But, as you begin to unload and move you may attract more attention.



Select all the units at the Jetty (hex 18,15). The three units you have add up to only 11 SPs, and there is a limit of 24 SPs allowed in each hex. When you unload them you will have 22 SPs, and will still be under the 24 SP limit. Unload the units now.



The hex will now contain 6 separate units. In the Unit List, however, you can probably only see four units and perhaps a portion of the top of the fifth unit (the number visible depends on your monitor's screen resolution). Click on any unit in the Unit List (preferably toward the bottom of the display), hold the mouse button down and **drag** the Unit List window upward. This is how you "scroll" the Unit List, allowing you to see more units in the stack. Be careful when clicking on a unit to scroll the list as anytime you click on a unit in the list (unless clicking on the Info Box "nameplate"), whether from scrolling or not, the unit is toggled between selected and unselected status. Remember that a selected unit

has a brighter ("highlighted") nameplate at the top of its Info Box; an unselected unit has a darker nameplate. This, of course, is how you can (un)select some of the units in any given location if you don't wish all of those present to participate in a particular activity.



Alternatively, click on any empty hex to unselect all units and then click on each of the units in the Unit List, one at a time, to select them. With the leader, the Rifle Platoon and the LMG units in 18,15 selected, press the **Reachable Hexes** button.



Looks like you can't move them too far this turn. However, you can move them a bit. Right click on the adjacent land hex 18,14 to move the selected units there. Be careful that none of the LCVPs in the hex are selected, as these units cannot move on land, and it would prevent the stack from moving if one were inadvertently selected.

It is easy to see that there could be quite a bit of traffic at the jetty. There are three LCVP units in hex 17,16 and they contain 14 SPs. Because of the stacking limitations (24 SP per hex maximum) you cannot move all of these into hex 18,15 at once. Instead, select one of the 6-SP and the 2-SP LCVP. Move these two units into 18,15 and try to unload them. You will not be able to. You will instead see a message on the status bar saying "Unloading produces overloaded stack". Now try to unload just the 2-SP LCVP (the one carrying the Mortar). Remember, you can right-click on the Unit List or the Info Box to see what unit is loaded on a transport. This time the unloading goes smoothly! Now move the *unloaded* transports *out* this location, then select the still-loaded 6-SP LCVP and unload it, then move this now-empty landing craft out of the hex, too. Finally, move the remaining still-loaded LCVP (the one left in 17,16) into 18,15 and unload it. After all this,

you should have all 14 SPs of ground units unloaded at the Jetty (hex 18,15), and they still have sufficient APs available to be able to join Major Wing and the others in hex 18,14.



If you are fired upon as you move into hex 18,14, return fire. Major Wing and two of the units have enough APs for a single shot each. In this case, fire one unit at a time. Select your best unit to fire first, because Major Wing has only enough APs to assist one of the units, and will expend those APs with the first unit to fire. *Take your best shot first!*

Continue moving your flotilla of loaded landing vehicles toward the jetty. Don't forget to bring up the reinforcements from last turn. They may be out of view, but you will certainly need them before the game is over. As a transport becomes unloaded you should move it away (if it still has sufficient Action Points). The two Rifle Platoons (in/near hex 11,21) on *Insomanai Island* should patrol that small island and ensure that it is unoccupied. Press and hold the **<Shift>** key down to see the map labels.

Now, let's get some more fire support for those boys on the beach! Perhaps an escorting destroyer—one offshore (that you can't see on the map)—can provide fire support. There are also some unseen 155mm artillery units off the map on a nearby island, awaiting your target orders.



Click on the **Artillery Dialog** button (second from the left) and the "Artillery Dialog" box appears. You can see listed the artillery units, some of which may be grayed out. If a listed unit is "grayed out," it means it is unavailable this turn. Such a unit could be "out-of-comms" (communication) or, in the case of your mortars, it could still be loaded on landing craft or recently unloaded and not yet ready for a fire mission. Note the "\*" beside some of these units. This indicates that the battery is "Off Map."



With the "Artillery Dialog" open, the cursor has changed from a "cross" to a circled "crosshairs", and the game has automatically toggled from **MOVE** to **FIRE** mode. Select a unit in the "Artillery Dialog" and pass your cursor over any hex in that unit's LOS. You will see two fire values just like the direct fire factors. Any enemy unit in range of the indirect

firing unit is highlighted in red. Right click on any Japanese units you can see. You can even target hexes that appear unoccupied as long as your units can see those hexes. Make sure you place some fire on the "Improved Position" in hex 19,14, even though you may not have spotted any units there. *I just have a feeling the Japanese may be lurking in this vicinity!*

With each unit in the Artillery dialog you usually have enough action points for two shots. Each artillery battery available can be seen in the Artillery Dialog in bold black print. When you have given a battery fire orders, it is removed from the availability list. A battery which is not available for any reason is "grayed out". At this point, if you can see an enemy unit, hit it with fire. When you are satisfied that you have moved or fired all the units that you wish to, and have plotted your indirect fire mission for the next turn, press the **Next Turn** button to advance the game into the computer's phase.

## The Computer Opponent Strikes Again!

As was the case after your first turn, the computer has been just as unpredictable in its second turn. It is likely that some artillery fire landed on or around your force this time. New units have been exposed, and some shooting has taken place. This time, with the **Options|Details** set to "Medium", you saw more description of the results.

## TURN 3

### Moving Inland—the Fight Begins

Your third turn begins a bit differently from the first two. You will recall that the last thing you did at the end of your previous turn was to target various Japanese positions or suspected positions for the attention of indirect fire artillery units. As this turn begins that "indirect fire" begins to fall around the enemy, hopefully reducing his strength, but—if nothing else—at least causing the enemy some "disruption".

*Disruption* is a combat result of the game which affects unit effectiveness. A disrupted unit fires at half strength. It cannot initiate an assault, attempt to dig in, or clear mines. If assaulted, it defends at half strength. A disrupted unit also pays double the cost to move and unload (up to a maximum of 65 APs), and, perhaps most important, a disrupted unit is not allowed to move closer to the *closest known* enemy unit.

There is a common misconception in this game system regarding the movement of disrupted units. The misconception is that "a disrupted unit cannot advance closer to any enemy unit". In practice, this is not true. The way the game works is that your disrupted unit *cannot move closer to the closest known* enemy unit. It is still possible to move a disrupted unit to a position that is closer to another enemy unit, as long as this destination hex is no closer to the enemy unit which was closest at the *beginning* of the disrupted unit's move. Furthermore, retreats taking place during the opposing player's turn are not governed by this restriction.

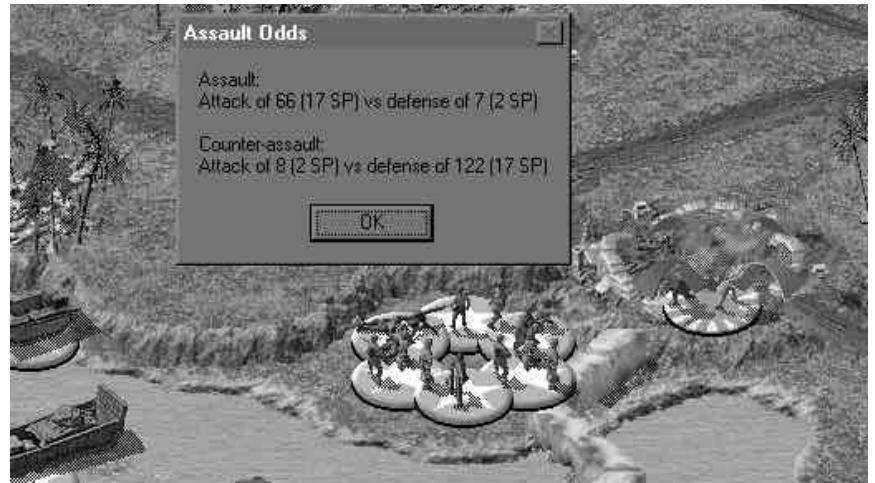
Friendly units disrupted in the previous turn may recover and be undisrupted at the start of this turn by passing a morale check. A leader from the same formation in the same hex will improve the chance of a successful morale check.



If your battle plan hasn't faltered too much, at the start of this third turn, Major Wing near the Jetty (in hex 18,14) is poised with some units to **assault** a Japanese engineer unit in the adjacent Improved Position (IP). Examine the units you have with Major Wing.

Disrupted units cannot assault, nor can some units such as mortars or DUKWs. Machine Gun units (LMGs and HMGs) can assault, but this is not the most effective use of these units. Rifle platoons (good old "grunts") are good for assaults, and engineer units are very good at this type of combat. Leaders help

other units in assaults, but cannot assault on their own. Unit assault values can be seen in the lower right corner of the unit's Info Box.



Select Major Wing and any effective assault troops in hex 18,14 and right click on the IP hex (19,14) as if to move there. This initiates an "Assault" on the hex. Unlike the direct fire example, in this type of attack the leader must be selected to be included in this type of combat. An "assault" is a special type of attack in which the units involved try to occupy the enemy hex. When you attempt an assault, an "Assault Odds" dialog appears which lists the odds for the assault (the odds you see may be different than that displayed above, depending on units assaulting and the current strength of the defending unit). Consult the page 48 for more information on the calculation of these odds.

Press the **OK** Button on the Assault Odds dialog. You can see that the hex to be assaulted contains an assault graphic with red arrows extending into the hex from several directions. If there were more units in other hexes adjacent to the IP, these units could also be added to the assault. In fact, assaulting a hex from more than one direction or from opposite directions gives the assault a greater chance of success.

 To initiate the assault on the IP, press the **Resolve Assault** button on the tool bar or select the **Assault|Resolve Assault** from the menu. If you want to cancel an assault at this point, select **Assault|Cancel Assault** from the menu. In this case, however, you will wish to proceed. You will likely win the assault and drive the Axis from the hex, only to find another stubborn position behind this one. This time it is a Bunker, and these fortifications are much stronger than the trenches and IPs you have faced so far. See pages 56-57 for more information on Fortifications.

To assault, units expend an additional 20 APs above the normal cost to occupy the terrain. The maximum cost to enter any hex in the game is 65 APs and this is the case with entering rubble hexes. Therefore, upon capturing this hex, these assaulting units will have expended most of their APs for this turn.

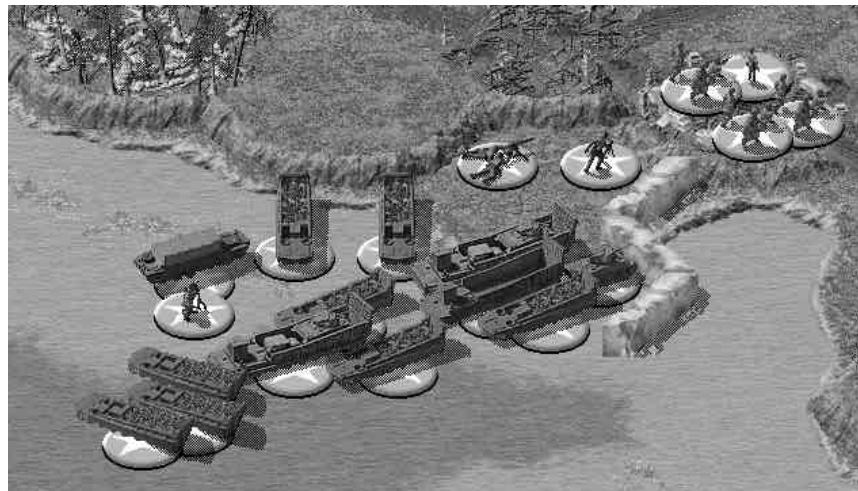
Over on your left flank, your LVTs can move right up to the enemy trenches this turn. However, they cannot assault because they will not have sufficient APs remaining for this turn. Although the LVTs can cross the reef hexsides, they pay 65 APs to do so. Move the LVTs that can reach them to the two hexes in front of the MG nest in the trench.

If you try unloading ALL the units in a hex at once, you may find that same problem we faced earlier with different units having different AP costs to unload. You have an HMG

and an Engineer with this first wave, and they will not have 50 APs available to unload after the LVT pays 65 APs to cross the reef. Unload the Rifle Platoons, however, and they will be in position to assault next turn as long as they remain undisrupted.

If you felt that the rifle platoons were in danger of being fired upon by strong enemy units, then you could have kept them aboard their transports. Infantry type units loaded in transport units which have an assault value will contribute half their strength to the assault. So, you see, if all goes well in the next turn you will have the option of using the engineers loaded in the LCT to assist in the assault. Alternatively, if your Rifle Platoons remain undisrupted, you may prefer not to use the loaded Engineers in the assault and save their APs for something else. You could, for instance, move them further inland and possibly unload them for use in the following turn. This is just an example of the choices you have if you plan and use your forces effectively.

Continue moving the remainder of your forces. Your LCM carrying the tanks should be approaching the jetty soon. Notice that one of the tank units is a M3A1 Flame Tank platoon. This armored unit has a flame icon (flame) in the lower left corner of its Info Box denoting its special feature. It has a very high assault value, and is ideal for Bunker busting. Furthermore, flame tanks are the only armored units that can assault enemy pillboxes.



 Indirect fire can be called for at any time during your turn. Veteran players of the Campaign Series usually consider it better to plot all indirect fire near the end of their turn when all the potential enemy targets are known. However, you should keep in mind that Indirect Fire is not available in unlimited quantities. Anytime a battery fires in any one turn, there is a chance that it will not be available to fire in the next turn. Each side has an "Ammo Level" as seen in the Unit List, and this value represents the chance that a battery that has fired a mission in one turn will be available to fire another mission in the next turn.

In addition, you have at your disposal 3 air strikes for use at any time during the game.

An Air Strike can be called down by selecting a hex containing an enemy unit and pressing the Air Strike button on the tool bar. Once ordered, however, there is no abort button, and you cannot decide to cancel or change it. Air Strikes are delayed events and may occur like indirect fire at the beginning of your next turn. Unfortunately, Air Strikes

may be delayed or they may be recalled and never arrive at all. Worse, they may come and hit a different target. Worse again, the different target they hit may be one of your own units. The greater the number of potential targets available to the pilots in the immediate area of the hex you designate for the attack, the greater is the chance that they will miss what you had intended they should strike.

 In short, Air Strikes are a powerful and valuable asset and should be employed as required, but used sparingly and carefully. You can see what types of aircraft may come to your aid from the **Status|Available Air Support** menu. You cannot select from the list the type of plane for the mission if more than one aircraft type is available. To initiate an Air Strike, click first on the intended target hex and then click on the **Air Strike** Tool Bar button. An Air Strike will be plotted on the selected hex. *This isn't a box of chocolates. You should be happy if the Air Support arrives in any form!*

Only you can decide when to call an Air Strike. In any event, do not forget they are available. You may wish to use one on that bunker hex you uncovered in hex 20,13. Bunkers are very stubborn positions, and the addition of the Air Strike would help. But, the bunker is also close to your own troops. It will be a tough choice to make.

 After you have finished your turn, press the **Next Turn** button to allow the computer to take its third turn.

## TURN 4

Anybody Heard from HQ?—Where are They Anyway?



In the Command report at the start of the fourth turn, you may have noticed one item that continues to appear—"1 HQ Unable to provide Supply". It is also possible that some of your units previously involved in combat are now reporting they are "low on ammo". To understand these messages, let's consider how HQs function in the game.

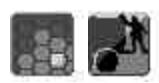
In any given scenario you may have many HQs. In this scenario you have only one. Each turn that a unit fires, there is a chance that it will be "Low On Ammo" at the start of the next turn. **NOTE:** Units never run completely *out* of ammo in the game. When a unit is low on ammo, its fire effectiveness is halved. The "Low Ammo" or "HQ out of supply" status can be seen by the "hollow" bullet icon (bullet) at the top left of a unit's Info Box.

HQ units may supply ammo to any unit within their organization provided the HQ did not move in the last turn. Your HQ has been moving since the game began. Hence, the origin of the message in your Command Report each turn.

The chance of a HQ providing supply is related to how close to the HQ the firing unit is located. The higher the level of HQ (i.e., regiment is higher than battalion) the greater the distance from which it can "supply" units. Essentially, this means that, as a practical matter, HQs, such as our battalion HQ, need to remain as close to the action as you can manage while moving as infrequently as possible. Being very valuable in victory points to the enemy and vital to your own units' firepower, they must also be placed in positions that are safe from enemy fire. The best defense for a HQ unit is a position out of the line of sight of any enemy units. That is, after you get it to shore.



Find the Battalion HQ. Normally you can do this by pressing the **Highlight Headquarter** button. In this case the HQ is loaded, and won't show up until you unload it. You will find it being transported in a 2-SP LCVP (quite likely on its way toward the Jetty).



Select that LCVP, press the **Reachable Hexes** and the **Save AP's for Unloading** Tool Bar buttons, and locate a hex where this unit can unload. Hex 16,15 would be good. But, make certain you destroy or remove that Japanese MG on your left flank so that no known enemy unit can see your HQ. This will give it protection from enemy artillery.

Move your HQ now and unload it. Press the **4** key to change the map to the 2D Normal view. With the HQ in place and selected, press the **W** key. This will light an area around the HQ that indicates the 50% re-supply point for the HQ (see illustration below). The percentage chance of ammo re-supply varies from 100% in the hex with the HQ down to 50% at the limit of the lighted area. Units outside the lighted area may still be supplied, but the percentage drops continuously and gradually below 50% past this boundary. Your HQ will begin to provide supply on the turn after it has not moved. For more information on supply, consult pages 78-79.



### Know the Ground on which you Fight!

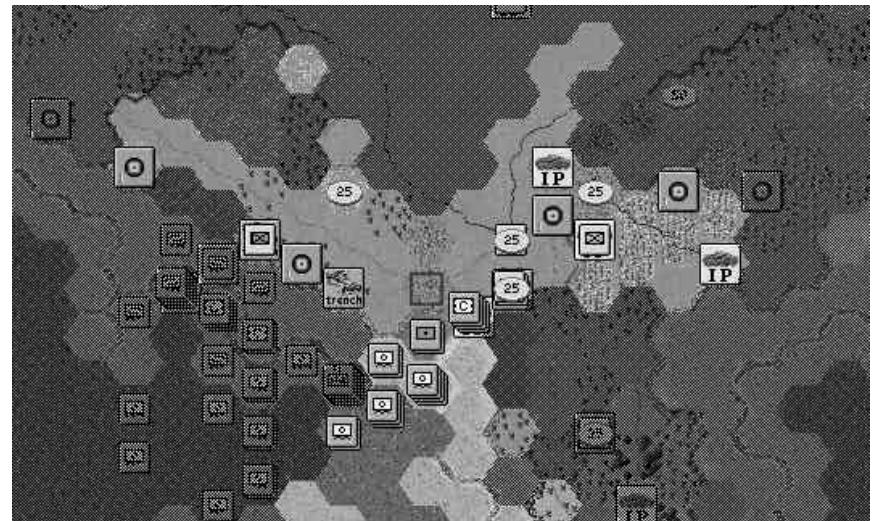
While still in 2D Map View, re-evaluate your Battle Plan. Recall that the main objective is toward the northeast corner of the map. This area contains many unknowns. How do you get from your present position to the 75 point objective in hex 30,6?

The road is the obvious choice. But, sometimes the shortest route is not the fastest or safest. To the left of the road is a track. But, the ground there is open, and, thus, your

units may be spotted from a distance and fired upon. Knowing where your units are will also allow your opponent the opportunity to plan for countering your moves.



Press the **Visible Hexes** button and click around the map noting what hexes you can see from where. Notice that if you advance to the right of the road you would have one flank covered by a stone wall. The ground here is not as open, so there is less chance of being targeted by indirect fire or long range MG fire. Continue studying the ground this way. You may learn that some map locations may be key, or even crucial, to your plans. These locations are not always marked as objective hexes.



For example, notice that from hex 18,13—right beside Major Wing—you can observe the approaches to the objective hex 16,11 on the left, as well as much ground on the right approaching two other objectives (see above). You will need every available Rifle Platoon for attacking the enemy, but hex 18,13 is a great position in which to place a light mortar if one is available. Being a rubble hex, this terrain offers the defender great protection and the view is excellent.



As you look over the map you will begin to see Minefields scattered in various locations. These are more readily seen in 2D as a grey counter. You may wish to select a hex with a mine while in 2D and then change the view to 3D so that you can be sure you'll recognize them when you see them in 3D.

Mines are a “terror weapon”. They are designed to slow down the attackers or force them into certain paths where other means of fire can neutralize them. An Engineer or a mine-clearing tank that starts the turn in a mined hex can reduce the mine factors in that hex by 1 (or clear it if it's a “1” minefield). Mines cannot be removed by any other means, including artillery. Mines are dangerous, especially for loaded transport. However, the effects of mines are often less than the fire you may receive by avoiding them. Therefore, while you should respect mined hexes, you should not necessarily treat them as hexes you cannot enter.

Running a unit though a minefield will not necessarily cause casualties (unless you're riding a truck). It may cause a Disruption result or no damage at all. If you have a Leader stacked with your units they will likely recover on the next turn, and your units might be

well placed to exploit the enemy in the next turn. Mines have variable strengths that are listed below the Info Boxes in the Unit List. Usually, they attack each unit with 1 factor. So, you can see how going through the minefield may be worth the risk. It's up to you to decide. However, they should not necessarily be treated as unenterable hexes.

### The Enemy in the Distance!

With your forces now in control of the Japanese IP in the rubble/village of Wakde, you can see well across the island toward the beach on the north shore. Here, at the start of the turn, another enemy unit can be seen. Enemy units that have not fired on you will not be revealed until the beginning of your turn. Therefore, even though you occupied (or very likely occupied) the first Japanese IP (hex 19,14), you could not see the new position until the beginning of this turn. This is how the concealment and LOS model works in the Campaign Series. The idea is that you can't expend APs of one unit, have that unit spot for the others, and then move unused units to react to the new information with their full turn's worth of action points available to them.



Of course, the next task you face is to neutralize and capture the bunker in hex 20,13. But what about the new IP you can see (in hex 20,7), the one guarding the north beach? A quick check using a selected unit and the **Display Range** button will reveal that it is beyond the range of your infantry units' weapons. What are your alternatives?

First of all, if the position is deemed to be a great enough threat, it would be a great target for an Air Strike. It is far enough away from your own units that you will likely be safe from your own attack, and, as there do not seem to be too many other enemy units around it, you have a pretty good chance that the Air Strike will hit the intended target hex. But, if there are unseen enemy units in the immediate vicinity, the Air Strike may still stray. For instance, there could be enemy units you have not yet spotted on that nearby beach. The big question becomes, is this target worth the expense of one of your Air Strikes?

Another option to consider is Smoke. You have a limited number of Smoke missions available for the *entire* scenario. The number of such missions you have can be seen beside the smoke icon on the Status Bar at the bottom of your screen, and is also displayed in the Unit List.

Smoke is an excellent weapon that can be used in a number of ways. To understand how to use it you need to understand its effects. First of all, smoke blocks the LOS between units on the same elevation. So, placing a smoke round between the guns and your units would, in this case, block the LOS. The smoke screen, however, is not very high. Therefore, if the enemy were on a hill, the smoke screen might not have the block effect that you thought it would. Think of a smoke screen at the base of a hill and the units on top looking out over it.

The other effect of smoke is that it reduces fire effects by half. In this respect, smoke is neutral between the players since it reduces both the fire out of the smoke filled hex and also any fire into the smoke hex itself. Smoke is usually fired by artillery, but not all artillery units have this capability. You have in your forces an 81mm Mortar. Locate this unit now, and notice the smoke icon in the lower left corner of the unit info box. The icon is not present on the lighter 60mm Mortar. Many off-board artillery units can also fire smoke. To fire smoke, select a unit capable of firing smoke rounds, then hold the **<Alt>** key while the game is in fire mode and **right click** on the target.

The proper use of smoke can be a very effective aid to storming a stubborn enemy

position. Often, it is useful to fire the smoke into hexes occupied by your own units to provide them with cover. This can be done using indirect fire a turn in advance, or it can be placed by an engineer unit. An engineer unit can only place smoke in the hex that it occupies. For more information on smoke see page 43.

The more likely choice for this target is Indirect Fire Artillery. The artillery is more reliable than an Air Strike, and the requested fire mission will come on the next turn. Being in an IP, the target isn't likely to move. So, as long as you keep the intended target hex in the LOS of one unit, you will hit it. However, keep in mind that, if you cannot see the hex you are trying to hit on the next turn when the rounds begin to fall, then the attack may "scatter" up to two hexes away from the intended target.

### You're on Your own from Here!

Continue on your own from this point. In this turn, you will likely assault and clear the trenches on your left. You will probably make a try for the Bunker on your right (hex 20,13). That assault will be a near thing and could go either way. In any event, you should still try it. If you fail, help is on the way as your tanks will be unloading soon, and that platoon of M3A1 Flame Tanks is a very effective assault weapon, especially for Bunkers and Pillboxes.



Good Luck, General!

You are now well on your way to many enjoyable hours of gaming with *Rising Sun*.

Should you require further assistance, and are connected to the "Internet," come up for discussion with the "TalonSoft Gang" or "The Beta Brigade" on the TalonSoft discussion page at:

<http://www.talonsoft.com/cgi-bin/WebX/>

You will find lots of interesting discussion about the game and you'll meet other "generals" from all over who will be happy to offer helpful suggestions or, perhaps, engage you in a "Play by E-mail" match.

**One final word!** Keep focused on your main objective, and don't worry about the time (number of Game Turns I mean—not the time of day and when you have to get up in the morning). You may often feel like you don't have enough turns to finish the mission. However, if you persevere, you'll surprise yourself with the ways you find to win near the very end of the scenario.

...and you can trust me on the part about the enemy being tricky!!!

## The Basics of Infantry Combat in *Campaign Series* Games

by Eddy Acevedo

The theories of real life combat translate well into the *Campaign Series* games. That is, the realistic basics such as taking cover, coordinated attacks etc. are depicted very well and realistically in these computer WW2 recreations. The tactics that I will be laying down are the basic textbook rules of infantry combat that I follow. As we all know however, in the heat of battle a situation can change very quickly and what may have started to be a "by the book" maneuver could very well wind up being an "on the spot" reaction or decision. The basics that I will be describing are fundamental theories that can only be perfected through practice and experience and as I've said, these theories are not an end-all be-all of combat in the *Campaign Series* games. They will however dramatically improve your game and make your victories much more decisive. TalonSoft's *Rising Sun* brings several new concepts to the *Campaign Series* games. I will cover the new rules and additions that have been included as that they will be integral to infantry combat and tactics *Rising Sun*-style. Although *Rising Sun* has a unique feel that is effectively its own, the basics that I will primarily focus on are universal. What I would like to share with you are my views on the fundamentals for infantry survival and effectiveness as I see them in the *Campaign Series*.

### The Assessment

The number one basic rule in infantry combat and in every aspect of the game for that matter is to *always survey the map and assess the situation*. Rotating a 3D-view map may help to see any nooks and crannies that can be easily overlooked otherwise. Take some time to view what lies before your troops, plan where and how you are going to attack or defend. The map can offer many routes of attack as well as routes for defense and having knowledge before hand is essential, as the battle will often guide itself around the contours of the land like water. With that in mind, while on the defensive, watch and guard the positions that are the easiest to access and while on the offense, exploit those same areas.

If you are not playing with a time restriction, then take the time to review your troop's strengths and weigh them against your opponents'. Every unit has its use and its advantages. Even the apparently weak units have theirs and more often than not, a good scenario is designed with these things in mind. Infantry are the most versatile units and the very foundation of every army. Although infantry can be very effective, as every unit, they have their strengths and weaknesses as well as their uses.

### On The Offensive

One cannot take a defended position without the proper units. The scenarios have already taken these things into account and so you will normally be allocated the proper resources to get the job done. Your mission as a commander is how to use what you have been given to their peak efficiency in the allotted time, a very difficult thing to master and an elusive concept that will often be grasped with hindsight. That being said, again, assessment of the situation becomes even more vital for a force on the offensive. If you haphazardly charge into the fray you will only ensure your own defeat. By a Western outlook, those kind of tactics are best used when you outnumber your opponent 10 to 1 and even then it is not advised and was only effective in the times before the dawning of modern weaponry (i.e., before the age of the rifle). However the Japanese have a very effective attack that, although it can be desperately brutal in its delivery, will instill fear and panic in any enemy. The Banzai Attack will give a Japanese commander and his units the advantage of being able to traverse terrain as if double-timing and assault numerous times. Depending at where your Japanese forces may be, they will be able to assault a defended position with alarming frequency since the defender's terrain movement cost is nullified. I will have more to say about Banzai Attacks later.

It is sufficient to say that in order to be effective in your offense, you should always plan your advance carefully for you are the aggressor. Make sure that the hexes of advance will be reachable as you decide where you will proceed. In addition to these things, there are a few avenues that need to be considered before launching the attack...

**Recon:** This is probably the most difficult "art" to master in the *Campaign Series* games. Since you

will not be able to see spotted enemies until the next turn, you should always advance upon previously unviewed territory very carefully. I won't get into the fundamentals of *Campaign Series* recon since Glenn Saunder's article (which can be found at <http://battlefront.thegamers.net/strategy.html>) is by far an already excellent work of informative tactics on the matter. I will however mention two basic things about recon that will help your infantry's offensive:

As your forces advance, pick the positions that will offer the maximum visibility so that you will (hopefully) be able to survey enemies waiting in ambush or that are concealed from view. Keep in mind, however, that your opponent may be watching you as well, so select the visible hex button to view any hexes before you that might put your recon units in jeopardy (as well as the rest of your advancing force). This is above all the most important aspect of recon. You do not want your opponent viewing the approach of your aggressor forces for various reasons, such as premature knowledge of your units and artillery spotting. Infantry are dangerously susceptible to artillery barrages and even more so if they are riding in or upon vehicles.

In night scenarios as a general rule I do not have opportunity fire set. Allowing your units to fire at night will attract attention to their gunflashes. When moving at night, try not to be detected until you reach your purpose or objective. Premature knowledge of your forces and their positions will give your opponent a basis in which to react, but if surprise can be achieved then he will clearly be at a disadvantage.

**Direction of attack:** For this, recon is the *most* important part of your offensive. After you have determined the various positions of the opposing forces, you will now be offered the decision as to know where and how to deploy and commence the attack. This is an art in and of itself. Realizing the lay of the land can prove to be most beneficial.

The art of knowing where and how to attack will vary with the type of units being used. In this article however, I will primarily get into the fundamentals of the infantry unit.

**Suppression fire:** It is ideal to use suppression fire when advancing infantry. Once enemy positions have been viewed, use any appropriate artillery, tank, and or machinegun fire to lay down a hail of death in order to keep the enemy's head down. Even if you obtain a disruption effect, that will reduce the defender's attack by *half* and thus reduce the amount of damage they may do to your troops. The enemy units that are in range and the first that are on my list are enemy machineguns. They are effectively the primary killers of infantry. Next are any enemy mortars that may be within range. Lastly, any enemy infantry positions that are to be assaulted or that effectively block an advance. These techniques may vary given the situations, but they are the general rule that I follow.

Smoke is also incredibly useful as that it will not only block the line of sight (or LOS) if it is between units, but it will also halve any attacks that are being made into or out of it. The use of smoke becomes a skill as well—the timing of which can be crucial.

At night, a Starshell will help your units to see the enemy. On the offensive, I reserve Starshells to light up a defended hex that I have plans for assaulting. This will give my machineguns and other units laying down suppression fire a clear objective, increasing their effectiveness to cause casualties and/or disruptions before the assault.

Suppression fire against Bunkers, Pillboxes and Caves play an equally vital role. To properly assault a defended hex containing one of these formidable defenses, suppression fire to soften up defending units will help to ensure that these objectives fall easier to your assault.

**Cover and the use of Double Time:** Always use the cover of the terrain when advancing with infantry. Infantry can be incredibly formidable if they are not in open terrain. If the situation presents itself, begin your infantry's movement with the Double Time option and get them into hexes where they will be in cover and/or be out of the line of fire. If your infantry are faced with having to rush defenders with a good field of fire, then Double Time forward into hexes that minimize the defender's ability to cause damage. In other words, if there are defenders in several hexes that will be able to fire, then lessen that amount by getting your units into hexes which can be seen by the *fewest* defending units. This might not get your units out of danger, but it will save them from unnecessary overexposure. Of course, the effects of Double Time can be detrimental as well, if any of the units' further

advance or attack fall within the time that is being taken to recover from its effects. Double Timing infantry will cause Fatigue for two turns (the turn in which it is used and the turn thereafter) so using Double Time must be weighed against the given situation. Since Banzai Attacks cause fatigue in the same manner as Double Time, I make sure that the charge will ultimately leave my troops in good and/or defensible cover.

Some words from my comrade Glenn Saunders may help further to understand the intricacies of Double Time:

*"Select a unit and press the 'Reachable Hexes' button. You can see this unit cannot go very far. If you press the <F2> key with the unit selected you will see the Unit Handbook and the unit's movement cost for a given hex. However you can always Double Time! Pressing the 'Double Time' button on the toolbar will extend the unit's movement range by allowing it to move at a cost of 75% the normal movement cost. But will that be enough in this case? Will it be enough to extend the range of this unit by an extra hex this turn? This is one of the "Age Old" questions of players of the Campaign Series. And the answer is really quite simple although I will spare you the math. Units using Double Time effectively have 133 APs to expend in a turn. For more information on Double Time and its effects, consult the Player Guide. But keep the 133 number in mind and then you can easily work out when Double Time will benefit your movement."*

**Attack in mass:** The use of attacking in mass is the involvement of several units in one hex, but this can also be dangerous and the factors of the given situation will need to be assessed. If you have over 12 SP in a given hex, a "Target density value" is then added to the attacker's chances of causing damage (that is, a bonus is given to your enemy if you have over 12 SP in any given hex). However, try not to separate your forces too thinly. Here are some considerations for attacking in mass:

- 1) Your troops will be able to concentrate their attacks in force as well as have more firepower. This is especially helpful if they have been set for "opportunity fire". In an ambush, massed units can seriously hamper a counterattack or advance.
- 2) Attacking in mass should include a commander. A commander who is present will help units recover morale, effectively increase the units' morale and improve the units' attacks up to the commander's APs relative to the units' attack value.
- 3) Having several pockets of massed infantry advancing towards an objective will give you the chance to break the group and surround the defending units to cause the glorious "Assault". The formula for assaulting goes something like this: Disrupt - Surround - Assault. Make sure that your assaulting troops are not low on ammo (or they will assault at  $\frac{3}{4}$  effectiveness) or disrupted (which will render them unable to assault). But even a disrupted or low-ammo unit can be effective if only to prevent the assaulted troops from having a hex in which to retreat. Another technique in which attacking in mass is useful for is that it will give you enough troops to draw any opportunity fire that the defenders may have and then advance to continue the assault more effectively. Tanks can play a huge role in this tactic, soaking up defending infantry fire with a much higher chance for survival. A properly executed assault will capture or eliminate an encircled opponent. Assaulting is a method particularly useful when trying to quickly disperse of a pocket of stubborn defenders.
- 4) Having sufficient troops for an assault is key. The primary strength of the Japanese forces is their ability to assault their enemies without mercy. The already formidable form of attack is amplified by the Japanese charge known as the Banzai Attack. Nothing strikes terror into a foe more than a wave of charging soldiers howling for blood. But in order to conduct this tactic of overpowering and terror a commander needs to ensure that he has enough forces in his "mass" to proceed effectively.

**Keep an Eye on Your Troops' Morale:** Nothing is more frustrating than charging an occupied position with vigor and confidence and then have your men "high tail it" after being hit by enemy fire. This not only causes a crucial upset in the progression of your attack, but also can send your troops into territory that can be equally if not more dangerous than the one that they were fleeing from. You can quickly assess the current morale of your units (when in any 3D map mode) by click-

ing on the "morale" display are in any unit Info Box, and then pressing the T hot key. The preservation of morale is another reason to make good use of the terrain. Some terrain such as open, sand or shallow water can be detrimental to your unit's morale, while other terrain such as village, forest, jungle and industrial can be very beneficial. It's better to advance your infantry into morale-beneficial terrain than it is to keep them in terrain that only aides in the loss of more SP. Even with the high morale that the Japanese force has, a Japanese commander would be wise to adhere to this strategy.

**The Japanese Banzai Attack:** The Banzai attack can be a most effective way of dislodging stubborn defenders from their positions. By issuing a Banzai Attack the Japanese commander orders his men to rush the enemy and not stop until either dead or victorious. The Banzai Attack is a double-edged sword, however. Fatigue, an lessened cover and the fact that units cannot retreat are all factors that a Japanese commander needs to assess before making the decision to overrun his foe by sending in a charging Banzai Attack. These factors all cause an increased chance for casualties, but such is the sacrifice that a Japanese soldier must make for their emperor if given the order. To further rationalize the effects that may be detrimental, it is necessary to review them in some detail.

Troops that conduct a Banzai Attack become Fatigued; realizing where these units will end up is recommended. The rules of terrain and cover should always be considered and although the situation may offer a pursuit of retreating forces (i.e., continuing the charge), a commander needs to quell his bloodlust for the better of his men. *Assess the terrain and the situation.*

Banzai Attacks are most effective during the night. Given that the lessening of terrain protection during a Banzai Attack can hamper its effectiveness, gearing up for a charge at night and using terrain will help to ensure its success. An 0.1 change in the TEM may not *seem* like a lot, but that 10% change can go a long way in disrupting your plans. The limited viewable hex area of night will allow a crafty Japanese commander to gather his troops within nearby hexes out of LOS to prepare for a charge that could very well mean the destruction of his foe. Such an effort however will be disrupted if your men give their positions away by firing first. Firing at night results in gunflashes and this will allow your enemy to fire in your occupied hex, which in turn can disrupt your units or cause worse damage including foiling your advance and or assault. As a general rule, I turn off opportunity fire when I am on the offensive and gearing up for a Banzai attack.

Keep in mind that once the decision is made, there is no turning back. Your men do not have the option to retreat so platoons taking excessive fire must continue the charge and leave behind their dead and wounded. In game terms, a Japanese unit charging does not have the option to retreat and so the chances for a casualty "effect" is essentially increased.

Lastly, before performing the Banzai Attack morale check, make sure that all the units that should be used in a suppression fire role (and that are in range of and subservient to the leader who is preparing to give the order) conduct their suppression fire *before* the command for a charge is given. If not, they will be conducting their attacks in a fatigued state instead of at their full fire value.

**Advancing In the Night:** Among the new additions to the Campaign Series night scenarios offer a whole new level to an advance. This addition and its rules not only create a greater sense of story and drama; they add more to tactics and to the overall complexity of these games. While night rules offer different and mostly beneficial aspects to a battle, the basic principles of infantry tactics that I have previously mentioned should still be kept in mind if not in practice. However one further night addition needs to be addressed:

**Using Starshells:** The use of these items can be as tricky as they are helpful. Star Shells will greatly improve a combat night situation. The most beneficial use of Star Shells is the visibility that they provide. Once the enemy are in what is now considered "Daytime LOS", they are much more susceptible to direct fire and can be easily spotted. Typically, I will use any nearby disrupted or low on ammo units (in that order) to attempt to make firing a Star Shell successful. Although tactics may differ slightly from offense to defense, a good rule to follow when firing Star Shells is to fire them a hex behind the target hex in which to want to illuminate. If this works then this tactic will leave your units in darkness while lighting up the enemy's position.

**a) Offense:** To further ensure that the potential damage to my forces is minimized, I will target a

hex one hex away from the defended positions. Since the effective range is two hexes, the lit area will encompass the defended hex while keeping any outlying aggressor units within cover. Generally when on the offensive I reserve using Star Shells for an assault.

**b) Defense:** Using Star Shells can be used just as aggressively as on the offensive, but generally they are to be used to light an area in which it is thought that excessive enemy activity is occurring.

**Cracking Bunkers:** While I have generally covered the general practice of not only assaulting a position, but assaulting Bunkers, Pillboxes and caves, I thought it best to reiterate this design note from page 57 of this Player's Guide:

*"Rising Sun—with its Bunker, Pillbox and Cave complexes—gives a different battlefield experience than that of other games in the Campaign Series. Defensive positions composed of Bunkers and/or Pillboxes are not likely to fall easily. You cannot realistically expect to dig out the defenders on your first try (i.e., in one six minute game turn). A plentiful supply of guts, bayonets, and patience—with a certain measure of good luck added in—are required to be successful in "bunker busting". In game terms, this translates into (1) time to reduce the strength of the defenders and to disrupt them... [I try to reduce both the number of enemy units by picking on the weaker ones (since +5 is added to each unit in a Pillbox or Bunker, eliminating even a 1-SP unit can greatly reduce the overall defensive strength) and disrupt the larger-SP infantry units to reduce the overall defense.] ... (2) multiple assaults (per turn if possible) with good odds... [I define "good" as 2-1 or better] ... and finally, (3) a good "die roll". It is sometimes better to attempt two assaults at 2-to-1 odds on a stubborn position than it is to try one assault at 4-to-1 odds."*

## On The Defensive

The basic principles of offensive strategy can be applied to defense as well. The job of defense is slightly easier than that of offense, but the challenges are still present. Although most of the time defending units will be stagnant in their positions, they do not necessarily need to be locked into that mind-frame. As the battle moves and flows about the landscape there may be a need to reposition your defending troops. The principles of recon and direction of attack apply to defending infantry as well. Knowing which direction your opponent is coming from can be extremely important, if not vital. If you don't have a clear LOS to the most accessible points of attack, then the most effective thing to do is to move units where they can get the best visibility. You will then be able to see your enemy's troop strength and have time to react to his actions. Being on the defensive, you have the advantage, but a sharp-witted opponent can exploit any weaknesses and quickly flank stagnant defended positions. This can be especially dangerous if you are defending exit points. Infantry excel when defending, it is what they do best, but they can't do that task efficiently without adhering to certain basics:

**Supporting Fire:** The objective of a defense is not only to protect the valuable positions, but also to stall an advance, by causing a considerable amount of casualties to the attacker. Make sure that the avenues of approach are covered by numerous positions. If there is only one position of defense, then there is a greater chance of that position being cutoff or overrun. With multiple defended positions within range of supporting fire, there is the addition of protection and the increase in the chance to get your opponent in a deadly crossfire. Since infantry ranges of attack are not very high, this becomes more of a necessity. To compensate for infantry ranges, machineguns and mortars are the perfect addition to an infantry defense. A well-placed machinegun or mortar can be very formidable with its ability to hit attackers from a greater distance. These will be the killing arm of infantry defense, leaving other defending infantry to keep their positions from being overrun as well as assisting in defensive fire upon any units that may have advanced to be within the range of the defended positions.

On a further note, the use of Starshells can play a vital role in infantry defense and supporting fire. The best time to fire a Starshell is when enemy units begin to gather around an objective that they are wishing to assault. By firing Starshells, you will catch them like deer in headlights and then a killing field will most definitely follow.

**Using Cover:** Again, cover plays a crucial role in the defense of a given position. If your infantry are not in Improved Positions, then one of the better tactics is to begin to create such positions quickly before your opponent reaches the objective. The effects of land are cumulative, so any Improved Positions built in hexes that contain good defensive terrain (such as villages, forest, etc.) are ideal places to fortify. Good defensive terrain will also help lessen damage being done and thus secure the preservation of the defense. A solid approach to infantry defense is to set up positions near or around high-movement-cost terrain. This will hamper the enemy's progress while giving you more chances to cause casualties within his ranks. Just as with the methods of advancing, these types of terrain also help with the morale checks of your units. A commander does not want his troops fleeing from the approach of the enemy.

**Defending in Mass:** Defending positions with a small amount of troops can be more detrimental than efficient. A solid defense needs the support of several platoons. Remember however that the rule of "Target density value" applies to defense as well.

A key position should not only maintain supportive fire, but any units within its hex should be units with high Defense values. If an assaulting unit can be kept from winning an assault, every turn that it is left in surrounding terrain gives you another chance at disrupting and or weakening the attacking force. Defending in mass will also help to insure that a Banzai-Attacking Japanese force will not continue their assault without taking considerable casualties. This will also give you the opportunity to counterattack while they are fatigued. If all you have are a small amount of troops spread thinly then you will certainly be giving your opponent a clear indication to continue his advance and or assault. This is even more critical in night scenarios. Because of limited LOS, thinly spread platoons might find themselves quickly isolated and cut off from immediate help.

**Know When to Fold:** There will be times when a position must be abandoned for the greater good. A defender in the *Campaign Series* needs to keep the attacker from getting enough VPs before the allotted time, but needs to take care that his troops are not lost in the process. Most "line" infantry units will have 5 to 6 SP. At 3 or 4 VP per SP, that makes for a lot of VPs to gain or lose. If the situation looks as if holding an objective is going to cost both the objective and a greater amount of casualty VP, then it is best to evacuate those units to better positions. Perhaps their efforts can be better used at a different, more valuable objective or perhaps those very same units can take up new defendable positions on avenues of approach and cause suppression fire. It is a command decision that can make or break a battle. If indeed the decision to withdraw has been decided upon, it is best to Double Time infantry to the farthest positions (assuming that enough APs are available)—ideally now out of the line of visibility—and take time to secure a new area. Building Improved Positions now would not be advised due to the low chance of success (10% per turn), but cover is always the best option.

## Summary

These are my fundamental dissertations on the basics of infantry combat in the *Campaign Series*. I hope that they will be as useful to you as they are to me. The steady practice of these techniques will hone your infantry command skills. I would like to stress again however that a given situation can be ever changing, but if you have the foundation of proper technique, then changing situations will become more manageable and less chaotic.

Just as real life tactics translate nicely in the *Campaign Series*, I have found a certain book to be immeasurable in the tactical wisdom that is held within its pages. Sun Tzu's THE ART OF WAR may deal with ancient Chinese warfare, but its fundamental principles still relate perfectly to the modern age and can even be applied to the computer *Campaign Series* that we all know and love.

I would like to thank all those whom have made my love of this game more enjoyable and to all those that have helped me make this article possible. Thanks goes out to all my mates in "The Beta Brigade"; TalonSoft and all those who have helped create and make these games what they are—an outstanding set of WW2 wargames; all of my comrades that have kicked my butt or have had theirs kicked by me; and special thanks to Glenn Saunders for all his help, patience and inspiration.

Eddy Acevedo

Appendices - scenario chart

| FROM | Scenario     | Scenario                         | Historical |           | First Side | Axis     | Allied      | Complex. Rating | Game Turns | Ground Cond. | Visibility |
|------|--------------|----------------------------------|------------|-----------|------------|----------|-------------|-----------------|------------|--------------|------------|
|      | Filename     | Title                            | Date       | Designer* |            |          |             |                 |            |              |            |
| TRS  | Shing Mun    | Cracking the Gin Drinkers' Line  | 10 Dec 41  | DB        | Axis       | Japanese | CW-Brit     | 4               | 16         | soft         | N(12)      |
| TRS  | Asun         | Blitzkrieg in Malaya             | 11 Dec 41  | DB        | Axis       | Japanese | CW-India    | 4               | 19         | soft         | 4          |
| TRS  | Wong Nei     | Tarnished Honour                 | 19 Dec 41  | S & B     | Axis       | Japanese | CW-Cdn      | 6               | 15         | dry          | 10         |
| TRS  | Taukkyan     | Taukkyan Roadblock               | 7 Mar 42   | DB        | Allies     | Japanese | CW-Brit     | 4               | 16         | soft         | 6          |
| TRS  | Tulagi       | Action in the Solomons           | 7 Aug 42   | DB        | Allies     | Japanese | US          | 3               | 25         | dry          | 6          |
| TRS  | Tenaru       | Trouble Along the Ilu            | 21 Aug 42  | DB        | Axis       | Japanese | US          | 3               | 20         | dry          | N(17)      |
| TRS  | Kilabo       | Showdown at Milne Bay            | 28 Aug 42  | DB        | Axis       | Japanese | US/CW-Aus   | 3               | 16         | mud          | 8          |
| TRS  | Matanikau    | Clash on the Matanikau           | 23 Oct 42  | DB        | Axis       | Japanese | US          | 4               | 20         | soft         | 4          |
| TRS  | Duropa       | Battering at Buna                | 19 Nov 42  | DB        | Allies     | Japanese | US          | 4               | 18         | soft         | 2          |
| TRS  | Bootcamp1†   | BC1: Advance to Contact          | 19 Nov 42  | S & B     | Allies     | Japanese | US          | 1               | 10         | soft         | 5          |
| TRS  | Bootcamp2†   | BC2: The Enemy Awaits            | 21 Nov 42  | S & B     | Allies     | Japanese | US          | 2               | 14         | dry          | 20         |
| TRS  | Bootcamp3†   | BC3: Bunker Busting!             | 22 Nov 42  | S & B     | Allies     | Japanese | US/Aus      | 2               | 16         | dry          | 20         |
| TRS  | Bootcamp4†   | BC4: Cry in the Dark             | 23 Nov 42  | S & B     | Axis       | Japanese | US/Aus      | 2               | 14         | dry          | N(16)      |
| TRS  | Wau          | A New Strategy                   | 28 Jan 43  | DB        | Axis       | Japanese | CW-Aus      | 5               | 25         | soft         | 4          |
| TRS  | Kyailkthin   | The Burma Railroad               | 3 Mar 43   | S & B     | Axis       | Japanese | CW-Chindit  | 2               | 12         | dry          | N(6)       |
| TRS  | Clevesy Pass | When the Snow Tiger Pounced!     | 29 May 43  | S & B     | Axis       | Japanese | US          | 4               | 16         | snow         | N(12)      |
| TRS  | Nadzab†      | Airborne Guinea Pigs             | 5 Sep 43   | S & B     | Allies     | Japanese | US/Aus      | 5               | 14         | soft         | 10         |
| TRS  | Betio        | Line of Departure: Tarawa        | 20 Nov 43  | DB        | Allies     | Japanese | US          | 7               | 26         | soft         | 8          |
| TRS  | Hellzapoppin | Hellzapoppin Ridge               | 18 Dec 43  | DB        | Allies     | Japanese | US          | 5               | 24         | soft         | 8          |
| TRS  | Roi          | Crossfire of Steel: Roi          | 1 Feb 44   | DB        | Allies     | Japanese | US          | 6               | 17         | soft         | 6          |
| TRS  | Kwajalein    | A Small Piece of Hell: Kwajalein | 1 Feb 44   | DB        | Allies     | Japanese | US          | 9               | 38         | soft         | 8          |
| TRS  | Kameng       | <i>The Last Push</i>             | 4 Apr 44   | GC        | Axis       | Japanese | CW-Ind      | 5               | 14         | soft         | 10         |
| TRS  | Kohima       | First Clash at Kohima            | 5 Apr 44   | BG        | Allies     | Japanese | CW-Brit/Ind | 5               | 16         | soft         | 12         |
| TRS  | Jotsoma      | Relief of Kohima                 | 14 Apr 44  | BG        | Allies     | Japanese | CW-Brit/Ind | 6               | 18         | soft         | 5          |
| TRS  | Myitkyina    | Merchant of Venice               | 17 May 44  | JS        | Allies     | Japanese | US          | 4               | 10         | soft         | 8          |
| TRS  | Wakde        | Tutorial-Storming Wakde Island   | 17 May 44  | DB        | Allies     | Japanese | US          | 4               | 22         | dry          | 7          |
| TRS  | Mokmer       | <i>Hurricane on Biak</i>         | 28 May 44  | DB        | Axis       | Japanese | US          | 4               | 18         | dry          | 6          |

† Hypothetical Scenario

**Bold** shows suggested side to play

*Italics* shows "Head to Head" Scenario

\*: see see Key to Scenario Designers on the following page.

| FROM | Scenario<br>Filename | Scenario<br>Title            | Historical |           | First<br>Side | Axis            | Allied             | Complex.<br>Rating | Game<br>Turns | Ground<br>Cond. | Visibility |
|------|----------------------|------------------------------|------------|-----------|---------------|-----------------|--------------------|--------------------|---------------|-----------------|------------|
|      |                      |                              | Date       | Designer* |               |                 |                    |                    |               |                 |            |
| TRS  | Oleai                | Tanks Up!                    | 17 Jun 44  | DB        | Axis          | Japanese        | US                 | 4                  | 12            | dry             | N (20)     |
| TRS  | Sengmai              | The Imphal-Dimapur Bloodline | 20 Jun 44  | GC        | Allies        | Japanese        | <b>CW-Brit/Ind</b> | 5                  | 14            | mud             | 10         |
| TRS  | Hill 40 Guam         | Banzai!                      | 21 Jul 44  | DB        | Allies        | <b>Japanese</b> | US                 | 4                  | 18            | dry             | N (17)     |
| TRS  | Peleliu              | Hell in the Pacific: Peleliu | 15 Sep 44  | DB        | Allies        | Japanese        | <b>US</b>          | 6                  | 22            | dry             | 6          |
| TRS  | Palo                 | We're Back!                  | 20 Oct 44  | DB        | Allies        | Japanese        | <b>US</b>          | 5                  | 34            | soft            | 6          |
| TRS  | Pemienta             | <i>Breakout at Pemienta</i>  | 29 Jan 45  | DB        | Axis          | Japanese        | US                 | 3                  | 12            | soft            | 4          |
| TRS  | Meiktila             | <i>The Battering Ram</i>     | 28 Feb 45  | S & B     | Allies        | Japanese        | US                 | 6                  | 15            | dry             | 9          |
| TRS  | Kakazu               | Checkmate on Kakazu Ridge    | 9 Apr 45   | DB        | Allies        | Japanese        | <b>US</b>          | 4                  | 22            | soft            | 4          |
| TRS  | Motobu               | Climb Mt. Yae-Take!          | 15 Apr 45  | JS        | Allies        | Japanese        | <b>US</b>          | 4                  | 12            | soft            | 10         |
| TRS  | Maeda                | Blood and Iron               | 4 May 45   | DB        | Axis          | <b>Japanese</b> | US                 | 6                  | 25            | dry             | 6          |
| TRS  | Kushikino†           | <i>On Hallowed Soil</i>      | 4 Nov 45   | CW        | Allies        | Japanese        | US                 | 4                  | 16            | dry             | 2          |
| TRS  | Sasebo†              | Operation Ketsu-Go           | 10 Nov 45  | JS        | Allies        | Japanese        | <b>US</b>          | 5                  | 20            | soft            | 10         |
| TRS  | Kamogawa†            | The Main Event               | 1 Mar 46   | CW        | Allies        | Japanese        | <b>US</b>          | 9                  | 28            | dry             | 8          |

† Hypothetical Scenario

Bold shows suggested side to play

Italics shows "Head to Head" Scenario

\*: see Key to Designers (below)

| Key to Designers |                                    |
|------------------|------------------------------------|
| BG               | Bart Gauvin                        |
| CW               | Chris Wilson                       |
| DB               | Doug Bevard                        |
| GC               | George Chow                        |
| JS               | John Schettler                     |
| S & B            | Glenn Saunders<br>& Dave Blackburn |
| TH               | Tom Herrschaft                     |

| Rising Sun Campaign Games |      |            |           |           |          |        |            |
|---------------------------|------|------------|-----------|-----------|----------|--------|------------|
| Campaign Game Title       | Type | Start Date | End Date  | Designer* | Axis     | Allied | Play as... |
| Crisis in Burma           | DCG  | 20 Jan 42  | 28 May 42 | DB        | Japanese | CW     | either     |
| Return to the Philippines | DCG  | 20 Oct 44  | 28 Dec 44 | DB        | Japanese | US     | either     |
| Struggle for Luzon        | DCG  | 9 Jan 45   | 28 Jun 45 | DB        | Japanese | US     | either     |
| Operation Shoestring      | LCG  | 7 Aug 42   | -         | TH        | Japanese | US     | Allied     |
| The Kokoda Trail          | LCG  | 21 Jul 42  | -         | S & B     | Japanese | CW     | Allied     |
| Fall of the Philippines   | LCG  | 22 Dec 41  | -         | TH        | Japanese | US     | Axis       |
| Spearhead†                | LCG  | 29 Oct 45  | -         | CW        | Japanese | US     | Allied     |

† Hypothetical

\*: see Key to Designers (below)

## Appendices - Japanese Unit Data

| JAPANESE<br>UNIT NAME                       | Strength | Victory | Assault | Defense | Opt. Armor |   |   | Firing | Loading | Unload | Start | Start | End   | End  |
|---|----------|---------|---------|---------|------------|---|---|--------|---------|--------|-------|-------|-------|------|
|   | Points   | Points  | Value   | Value   | F          | S | R | Cost   | Cost    | Cost   | Month | Year  | Month | Year |
| Type 94 Tankettes                           | 3        | 9       | 2       | 3       | 3          | 1 | 1 | 50     | 0       | 0      | 12    | 41    | 12    | 46   |
| Type 95 SO-KI Tankettes                     | 3        | 9       | 2       | 2       | 2          | 1 | 1 | 50     | 0       | 0      | 1     | 44    | 12    | 46   |
| Type 97A TE-KE Tankettes                    | 3        | 9       | 2       | 4       | 5          | 1 | 1 | 50     | 0       | 0      | 12    | 41    | 12    | 46   |
| Type 97B TE-KE Tankettes                    | 3        | 9       | 3       | 4       | 5          | 1 | 1 | 50     | 0       | 0      | 12    | 41    | 12    | 46   |
| Type 2 KA-MI Amphibious Tanks               | 5        | 15      | 4       | 3       | 3          | 1 | 1 | 40     | 0       | 0      | 7     | 44    | 12    | 46   |
| Type 95 HA-GO Light Tanks                   | 3        | 9       | 4       | 4       | 3          | 2 | 1 | 50     | 0       | 0      | 12    | 41    | 12    | 46   |
| Type 95 HA-GO Light Tanks                   | 4        | 12      | 4       | 4       | 3          | 2 | 1 | 50     | 0       | 0      | 1     | 44    | 12    | 46   |
| Type 98 KE-NI Light Tanks                   | 3        | 12      | 3       | 5       | 4          | 2 | 1 | 50     | 0       | 0      | 11    | 45    | 12    | 46   |
| Type 4 KE-NU Light Tanks                    | 3        | 12      | 5       | 5       | 4          | 3 | 1 | 45     | 0       | 0      | 11    | 45    | 12    | 46   |
| Type 89 CHI-RO Medium Tanks                 | 3        | 12      | 5       | 4       | 3          | 2 | 1 | 45     | 0       | 0      | 12    | 41    | 12    | 43   |
| Type 97 CHI-HA Medium Tanks                 | 3        | 12      | 5       | 5       | 4          | 3 | 2 | 45     | 0       | 0      | 12    | 41    | 12    | 46   |
| Type 97 CHI-HA Medium Tanks                 | 4        | 16      | 5       | 5       | 4          | 3 | 2 | 45     | 0       | 0      | 1     | 44    | 12    | 46   |
| Type 97 CHI-HA Medium Tanks                 | 5        | 20      | 5       | 5       | 4          | 3 | 2 | 45     | 0       | 0      | 1     | 45    | 12    | 46   |
| Type 97 CHI-HA Kai Medium Tanks             | 3        | 12      | 5       | 5       | 4          | 2 | 2 | 45     | 0       | 0      | 5     | 42    | 12    | 46   |
| Type 97 CHI-HA Kai Medium Tanks             | 4        | 16      | 5       | 5       | 4          | 2 | 2 | 45     | 0       | 0      | 1     | 44    | 12    | 46   |
| Type 97 CHI-HA Kai Medium Tanks             | 5        | 20      | 5       | 5       | 4          | 2 | 2 | 45     | 0       | 0      | 1     | 45    | 12    | 46   |
| Type 1 CHI-HE Medium Tanks                  | 4        | 16      | 5       | 6       | 6          | 2 | 2 | 40     | 0       | 0      | 4     | 44    | 12    | 46   |
| Type 1 CHI-HE Medium Tanks                  | 5        | 20      | 5       | 6       | 6          | 2 | 2 | 40     | 0       | 0      | 1     | 45    | 12    | 46   |
| Type 3 CHI-NU Medium Tanks                  | 5        | 25      | 6       | 6       | 6          | 2 | 2 | 35     | 0       | 0      | 11    | 45    | 12    | 46   |
| Type 1 HO-NI 75mm Tank Destroyers           | 5        | 15      | 1       | 5       | 6          | 2 | 1 | 50     | 0       | 0      | 4     | 44    | 12    | 46   |
| Type 91 Armored Cars                        | 5        | 10      | 3       | 3       | 3          | 1 | 1 | 40     | 0       | 0      | 12    | 41    | 12    | 46   |
| Type 1 HO-NI 75mm Self-Propelled Howitzers  | 5        | 25      | 1       | 5       | 6          | 2 | 1 | 50     | 0       | 0      | 4     | 44    | 12    | 46   |
| Type 4 HO-RO 150mm Self-Propelled Howitzers | 5        | 25      | 2       | 5       | 5          | 2 | 1 | 50     | 0       | 0      | 1     | 45    | 12    | 46   |
| Type 1 HO-KI Armored Personnel Carriers     | 6        | 12      | 0       | 2       | 2          | 1 | 1 | 0      | 0       | 0      | 10    | 44    | 12    | 46   |
| Artillery Tractors                          | 4        | 8       | 0       | 1       | 0          | 0 | 0 | 0      | 0       | 0      | 12    | 41    | 12    | 46   |
| Trucks                                      | 6        | 6       | 0       | 1       | 0          | 0 | 0 | 0      | 0       | 0      | 12    | 41    | 12    | 46   |
| Wagons                                      | 6        | 6       | 0       | 1       | 0          | 0 | 0 | 0      | 0       | 0      | 12    | 41    | 12    | 46   |

"Strength Points" are SP/platoon

"Victory Points" is VP/Platoon (of listed SP)

| JAPANESE<br>UNIT NAME                 | Strength | Victory | Assault | Defense | Opt. Armor |   |   | Firing | Loading | Unload | Start | Start | End   | End  |
|---------------------------------------|----------|---------|---------|---------|------------|---|---|--------|---------|--------|-------|-------|-------|------|
|                                       | Points   | Points  | Value   | Value   | F          | S | R | Cost   | Cost    | Cost   | Month | Year  | Month | Year |
| Horses                                | 6        | 6       | 0       | 1       | 0          | 0 | 0 | 50     | 50      | 12     | 41    | 12    | 46    |      |
| Bicycles                              | 6        | 6       | 0       | 1       | 0          | 0 | 0 | 10     | 10      | 12     | 41    | 12    | 46    |      |
| Boats                                 | 6        | 6       | 0       | 1       | 0          | 0 | 0 | 50     | 10      | 12     | 41    | 12    | 46    |      |
| Rafts                                 | 6        | 6       | 0       | 1       | 0          | 0 | 0 | 50     | 10      | 12     | 41    | 12    | 46    |      |
| Daihatsu Landing Craft                | 6        | 12      | 1       | 6       | 0          | 0 | 0 | 35     | 0       | 0      | 12    | 41    | 12    | 46   |
| Shohatsu Landing Craft                | 6        | 12      | 1       | 2       | 8          | 6 | 6 | 35     | 0       | 0      | 12    | 41    | 12    | 46   |
| Year-11-Type 70mm Mortars             | 2        | 4       | 0       | 3       | 0          | 0 | 0 | 40     | 50      | 50     | 12    | 41    | 12    | 46   |
| Type 97 81mm Mortars                  | 2        | 6       | 0       | 3       | 0          | 0 | 0 | 50     | 50      | 50     | 12    | 41    | 12    | 46   |
| Type 97 90mm Mortars                  | 2        | 8       | 0       | 4       | 0          | 0 | 0 | 40     | 50      | 50     | 12    | 41    | 12    | 46   |
| Type 97 90mm Mortars                  | 4        | 16      | 0       | 5       | 0          | 0 | 0 | 40     | 50      | 50     | 12    | 41    | 12    | 46   |
| Type 97 150mm Mortars                 | 4        | 16      | 0       | 4       | 0          | 0 | 0 | 100    | 100     | 100    | 12    | 41    | 12    | 46   |
| Year-11-Type 37mm Infantry Guns       | 2        | 4       | 0       | 3       | 0          | 0 | 0 | 35     | 40      | 25     | 12    | 41    | 12    | 46   |
| Type 92 70mm Infantry Guns            | 2        | 6       | 0       | 4       | 0          | 0 | 0 | 40     | 50      | 25     | 12    | 41    | 12    | 46   |
| Year-41-Type 75mm Infantry Guns       | 2        | 8       | 0       | 3       | 0          | 0 | 0 | 40     | 50      | 50     | 12    | 41    | 12    | 46   |
| Type 94 37mm Anti-Tank Guns           | 2        | 4       | 0       | 3       | 0          | 0 | 0 | 40     | 50      | 25     | 12    | 41    | 12    | 46   |
| Type 1 47mm Anti-Tank Guns            | 2        | 6       | 0       | 3       | 0          | 0 | 0 | 40     | 50      | 25     | 9     | 42    | 12    | 46   |
| Type 1 47mm Anti-Tank Guns            | 3        | 9       | 0       | 3       | 0          | 0 | 0 | 40     | 50      | 25     | 1     | 43    | 12    | 46   |
| Type 94 75mm Mountain Guns            | 4        | 16      | 0       | 4       | 0          | 0 | 0 | 40     | 50      | 50     | 12    | 41    | 12    | 46   |
| Improved Year-38-Type 75mm Field Guns | 4        | 16      | 0       | 4       | 0          | 0 | 0 | 40     | 50      | 50     | 12    | 41    | 12    | 46   |
| Type 90 75mm Field Guns               | 4        | 20      | 0       | 4       | 0          | 0 | 0 | 40     | 50      | 50     | 12    | 41    | 12    | 46   |
| Type 91 105mm Howitzers               | 4        | 20      | 0       | 4       | 0          | 0 | 0 | 40     | 50      | 50     | 12    | 41    | 12    | 46   |
| Type 92 105mm Field Guns              | 4        | 24      | 0       | 4       | 0          | 0 | 0 | 40     | 50      | 50     | 12    | 41    | 12    | 46   |
| Year-38-Type 120mm Howitzers          | 4        | 16      | 0       | 3       | 0          | 0 | 0 | 50     | 50      | 50     | 12    | 41    | 12    | 46   |
| Year-4-Type 150mm Howitzers           | 4        | 20      | 0       | 2       | 0          | 0 | 0 | 50     | 50      | 50     | 12    | 41    | 12    | 46   |
| Type 96 150mm Howitzers               | 4        | 24      | 0       | 4       | 0          | 0 | 0 | 50     | 50      | 50     | 12    | 41    | 12    | 46   |
| Type 89 150mm Guns                    | 4        | 32      | 0       | 4       | 0          | 0 | 0 | 50     | 100     | 100    | 12    | 41    | 12    | 46   |

"Strength Points" are SP/platoon

"Victory Points" is VP/Platoon (of listed SP)

Appendices - Japanese Unit Data

| JAPANESE<br>UNIT NAME                  | Strength | Victory | Assault | Defense | Opt. Armor |   |   | Firing | Loading | Unload | Start | Start | End   | End  |
|--|----------|---------|---------|---------|------------|---|---|--------|---------|--------|-------|-------|-------|------|
|  | Points   | Points  | Value   | Value   | F          | S | R | Cost   | Cost    | Cost   | Month | Year  | Month | Year |
| Year-3-Type 80mm Dual Purpose Guns     | 4        | 12      | 0       | 4       | 0          | 0 | 0 | 35     | 0       | 0      | 12    | 41    | 12    | 46   |
| Type 98 Twin 100mm Dual Purpose Guns   | 4        | 28      | 0       | 5       | 0          | 0 | 0 | 35     | 0       | 0      | 1     | 45    | 12    | 46   |
| Year-10-Type 120mm Dual Purpose Guns   | 4        | 24      | 0       | 4       | 0          | 0 | 0 | 40     | 0       | 0      | 7     | 43    | 12    | 46   |
| Type 89 Twin 127mm Dual Purpose Guns   | 4        | 16      | 0       | 4       | 0          | 0 | 0 | 40     | 0       | 0      | 11    | 43    | 12    | 46   |
| Year-3-Type 140mm Coast-Defense Guns   | 4        | 28      | 0       | 4       | 0          | 0 | 0 | 40     | 0       | 0      | 7     | 43    | 12    | 46   |
| Type 96 150mm Coast-Defense Guns       | 4        | 16      | 0       | 4       | 0          | 0 | 0 | 50     | 0       | 0      | 7     | 44    | 12    | 46   |
| Type 93 Twin 13.2mm Anti-Aircraft Guns | 2        | 6       | 0       | 4       | 0          | 0 | 0 | 33     | 50      | 50     | 12    | 41    | 12    | 46   |
| Type 98 20mm Anti-Aircraft Guns        | 2        | 6       | 0       | 4       | 0          | 0 | 0 | 33     | 50      | 25     | 12    | 41    | 12    | 46   |
| Type 96 25mm Anti-Aircraft Guns        | 2        | 6       | 0       | 4       | 0          | 0 | 0 | 33     | 50      | 50     | 1     | 44    | 12    | 46   |
| Type 96 Twin 25mm Anti-Aircraft Guns   | 2        | 8       | 0       | 4       | 0          | 0 | 0 | 33     | 0       | 0      | 1     | 44    | 12    | 46   |
| Type 96 Triple 25mm Anti-Aircraft Guns | 2        | 8       | 0       | 4       | 0          | 0 | 0 | 33     | 0       | 0      | 1     | 44    | 12    | 46   |
| Type 88 75mm Anti-Aircraft Guns        | 2        | 10      | 0       | 3       | 0          | 0 | 0 | 35     | 100     | 100    | 12    | 41    | 12    | 46   |
| Type 99 88mm Anti-Aircraft Guns        | 2        | 12      | 0       | 3       | 0          | 0 | 0 | 35     | 0       | 0      | 1     | 45    | 12    | 46   |
| 120mm Naval Guns                       | 4        | -       | 0       | 0       | 0          | 0 | 0 | 50     | 0       | 0      | 12    | 41    | 8     | 45   |
| 140mm Naval Guns                       | 3        | -       | 0       | 0       | 0          | 0 | 0 | 50     | 0       | 0      | 12    | 41    | 8     | 45   |
| 155mm Naval Guns                       | 3        | -       | 0       | 0       | 0          | 0 | 0 | 50     | 0       | 0      | 12    | 41    | 8     | 45   |
| 200mm Naval Guns                       | 4        | -       | 0       | 0       | 0          | 0 | 0 | 50     | 0       | 0      | 12    | 41    | 8     | 45   |
| 360mm Naval Guns                       | 5        | -       | 0       | 0       | 0          | 0 | 0 | 100    | 0       | 0      | 12    | 41    | 8     | 45   |
| 410mm Naval Guns                       | 3        | -       | 0       | 0       | 0          | 0 | 0 | 100    | 0       | 0      | 12    | 41    | 8     | 45   |
| Rifle Platoon (2nd line)               | 6        | 18      | 6       | 7       | 0          | 0 | 0 | 35     | 50      | 25     | 12    | 41    | 12    | 46   |
| Rifle Platoon (1st line)               | 6        | 18      | 7       | 7       | 0          | 0 | 0 | 35     | 50      | 25     | 12    | 41    | 12    | 46   |
| Rifle Platoon (elite)                  | 6        | 24      | 8       | 8       | 0          | 0 | 0 | 35     | 50      | 25     | 12    | 41    | 12    | 46   |
| Parachute Infantry Platoon             | 6        | 18      | 7       | 7       | 0          | 0 | 0 | 35     | 50      | 25     | 12    | 41    | 12    | 46   |
| People's Volunteer Platoon             | 6        | 12      | 3       | 5       | 0          | 0 | 0 | 35     | 50      | 25     | 10    | 45    | 12    | 46   |
| Machinegun Section                     | 2        | 6       | 1       | 5       | 0          | 0 | 0 | 35     | 50      | 50     | 12    | 41    | 12    | 46   |
| Machinegun Platoon                     | 4        | 12      | 2       | 8       | 0          | 0 | 0 | 35     | 50      | 50     | 12    | 41    | 12    | 46   |
| Engineer Platoon                       | 6        | 24      | 8       | 7       | 0          | 0 | 0 | 35     | 50      | 50     | 12    | 41    | 12    | 46   |

"Strength Points" are SP/platoon

"Victory Points" is VP/Platoon (of listed SP)

| JAPANESE<br>UNIT NAME                  | Strength<br>Points | Victory<br>Points | Assault<br>Value | Defense<br>Value | Opt. Armor |   |   | Firing<br>Cost | Loading<br>Cost | Unload<br>Cost | Start<br>Month | Start<br>Year | End<br>Month | End<br>Year |
|--|--------------------|-------------------|------------------|------------------|------------|---|---|----------------|-----------------|----------------|----------------|---------------|--------------|-------------|
|  |                    |                   |                  |                  | F          | S | R |                |                 |                |                |               |              |             |
| Anti-Tank Rifle Platoon                | 2                  | 4                 | 0                | 3                | 0          | 0 | 0 | 35             | 50              | 50             | 12             | 41            | 12           | 46          |
| Cavalry Platoon                        | 6                  | 18                | 5                | 5                | 0          | 0 | 0 | 35             | 50              | 25             | 12             | 41            | 12           | 46          |
| Cavalry Platoon                        | 6                  | 18                | 5                | 5                | 0          | 0 | 0 | 35             | 50              | 25             | 12             | 41            | 12           | 46          |
| Cavalry Platoon                        | 6                  | 18                | 5                | 5                | 0          | 0 | 0 | 35             | 50              | 25             | 12             | 41            | 12           | 46          |
| Anti-Aircraft Machinegun Platoon       | 2                  | 6                 | 1                | 5                | 0          | 0 | 0 | 35             | 50              | 50             | 12             | 41            | 12           | 46          |
| Heavy Anti-Aircraft Machinegun Platoon | 2                  | 8                 | 1                | 5                | 0          | 0 | 0 | 35             | 51              | 50             | 12             | 41            | 12           | 46          |
| Battalion HQ (foot)                    | 2                  | 18                | 0                | 2                | 0          | 0 | 0 | 35             | 50              | 50             | 12             | 41            | 12           | 46          |
| Battalion HQ (mot.)                    | 2                  | 24                | 0                | 2                | 0          | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 12           | 46          |
| Regimental HQ (foot)                   | 3                  | 21                | 0                | 3                | 0          | 0 | 0 | 35             | 50              | 50             | 12             | 41            | 12           | 46          |
| Regimental HQ (mot.)                   | 3                  | 27                | 0                | 3                | 0          | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 12           | 46          |
| Brigade HQ                             | 3                  | 30                | 0                | 3                | 0          | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 12           | 46          |
| Divisional HQ                          | 4                  | 40                | 0                | 4                | 0          | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 12           | 46          |
| Corps HQ                               | 5                  | 45                | 0                | 5                | 0          | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 12           | 46          |
| Army HQ                                | 6                  | 54                | 0                | 6                | 0          | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 12           | 46          |
| Commander 1                            | 1*                 | 4                 | 0                | 1                | 0          | 0 | 0 | 0              | 10              | 10             | 12             | 41            | 12           | 46          |
| Commander 2                            | 2*                 | 8                 | 0                | 1                | 0          | 0 | 0 | 0              | 10              | 10             | 12             | 41            | 12           | 46          |
| Commander 3                            | 3*                 | 12                | 0                | 1                | 0          | 0 | 0 | 0              | 10              | 10             | 12             | 41            | 12           | 46          |
| Commander 4                            | 4*                 | 16                | 0                | 1                | 0          | 0 | 0 | 0              | 10              | 10             | 12             | 41            | 12           | 46          |
| Commander 5                            | 5*                 | 20                | 0                | 1                | 0          | 0 | 0 | 0              | 10              | 10             | 12             | 41            | 12           | 46          |
| Commander 1 (mot.)                     | 1*                 | 6                 | 0                | 1                | 0          | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 12           | 46          |
| Commander 2 (mot.)                     | 2*                 | 12                | 0                | 1                | 0          | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 12           | 46          |
| Commander 3 (mot.)                     | 3*                 | 18                | 0                | 1                | 0          | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 12           | 46          |
| Commander 4 (mot.)                     | 4*                 | 24                | 0                | 1                | 0          | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 12           | 46          |
| Commander 5 (mot.)                     | 5*                 | 30                | 0                | 1                | 0          | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 12           | 46          |

"Strength Points" are SP/platoon

"Victory Points" is VP/Platoon (of listed SP)

| JAPANESE<br>UNIT NAME           | RANGE |    |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|---------------------------------|-------|----|----|----|----|----|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
|                                 | 1     | 2  | 3  | 4  | 5  | 6  | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| Type 94 Tankettes               | 2     |    |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                 | 3     | 1  |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Type 95 SO-KI Tankettes         | 2     |    |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                 | 3     | 1  |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Type 97A TE-KE Tankettes        | 2     |    |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                 | 3     | 1  |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Type 97B TE-KE Tankettes        | 5     | 4  | 3  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                 | 5     | 4  | 3  | 2  | 1  |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Type 2 KA-MI Amphibious Tanks   | 6     | 5  | 4  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                 | 5     | 4  | 3  | 2  | 1  | 1  |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Type 95 HA-GO Light Tanks       | 5     | 4  | 3  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                 | 5     | 4  | 3  | 2  | 1  |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Type 98 KE-NI Light Tanks       | 6     | 5  | 4  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                 | 5     | 4  | 3  | 2  | 1  | 1  |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Type 4 KE-NU Light Tanks        | 6     | 5  | 4  | 3  |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                 | 7     | 7  | 6  | 5  | 4  | 3  | 2 |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Type 89 CHI-RO Med Tanks        | 5     | 4  | 3  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                 | 7     | 6  | 5  | 4  | 3  | 2  |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Type 97 CHI-HA Medium Tanks     | 6     | 5  | 4  | 3  |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                 | 7     | 7  | 6  | 5  | 4  | 3  | 2 |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Type 97 CHI-HA Kai Medium Tanks | 9     | 7  | 6  | 5  | 4  |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                 | 6     | 6  | 5  | 5  | 4  | 4  | 3 | 2 |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Type 1 CHI-HE Medium Tanks      | 9     | 7  | 6  | 5  | 4  |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                 | 6     | 6  | 5  | 5  | 4  | 4  | 3 | 2 |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Type 3 CHI-NU Medium Tanks      | 18    | 17 | 16 | 14 | 12 | 10 | 8 | 6 |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                 | 12    | 12 | 11 | 11 | 10 | 10 | 9 | 9 | 8 | 8  | 7  | 6  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Type 1 HO-NI 75mm Tank Dest.    | 16    | 15 | 14 | 13 | 12 | 10 | 8 | 6 |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                 | 6     | 6  | 5  | 5  | 4  | 4  | 3 | 2 | 2 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Type 91 Armored Cars            | 2     |    |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                 | 5     | 4  | 2  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |

Upper line is nominal Attack Strength vs. Hard (armored) Target  
Lower line is nominal Attack Strength vs. Soft (unarmored) Target

**Note:** Only *armed* units capable of ranged fire are listed in these Weapon Data charts; i.e., unarmed transport and leaders are not listed

| JAPANESE<br>UNIT NAME              | RANGE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 100 | 110 |    |    |    |    |   |
|------------------------------------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|----|----|----|----|---|
|                                    | 1     | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 30 | 40  | 50  | 60 | 70 | 80 | 90 |   |
| Type 1 HO-NI 75mm S-P Howitzers    | 14    | 12 | 10 | 8  | 6  | 4  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1  | 1  | 1  | 1  | 1 |
|                                    | 12    | 12 | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 10 | 10 | 10 | 10 | 9  | 9  | 9  | 9  | 8  | 8  | 8  | 8  | 8   | 8   | 8  | 8  | 8  | 8  |   |
| Type 4 HO-RO 150mm S-P How.        | 10    | 8  | 6  | 4  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   | 2   | 2  | 2  | 2  | 2  | 2 |
|                                    | 24    | 24 | 24 | 23 | 23 | 22 | 22 | 21 | 21 | 20 | 20 | 19 | 19 | 18 | 18 | 17 | 17 | 16 | 15 | 14 |    |     |     |    |    |    |    |   |
| Daihatsu Landing Craft             | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |    |    |    |   |
|                                    | 4     | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |    |    |    |   |
| Shohatsu Landing Craft             | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |    |    |    |   |
|                                    | 3     | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |    |    |    |   |
| Year-11-Type 70mm Mortars          | 0     | 0  | 1  | 1  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |    |    |    |   |
|                                    | 0     | 0  | 10 | 8  | 6  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |    |    |    |   |
| Type 97 81mm Mortars               | 2     | 2  | 2  | 2  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1  | 1  | 1  | 1  |   |
|                                    | 17    | 17 | 16 | 16 | 15 | 9  | 9  | 8  | 8  | 7  | 7  | 7  | 6  |    |    |    |    |    |    |    |    |     |     |    |    |    |    |   |
| Type 97 90mm Mortars               | 0     | 0  | 2  | 2  | 2  | 2  | 2  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1  | 1  | 1  | 1  |   |
|                                    | 0     | 0  | 16 | 16 | 16 | 15 | 15 | 14 | 14 | 13 | 12 | 12 | 11 | 10 | 10 |    |    |    |    |    |    |     |     |    |    |    |    |   |
| Type 97 150mm Mortars              | 0     | 0  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   | 2   | 2  | 2  | 2  | 2  |   |
|                                    | 0     | 0  | 24 | 24 | 23 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 10 | 10 | 10  | 10  | 10 | 10 | 10 | 10 |   |
| Year-11-Type 37mm Infantry Guns    | 4     | 3  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |    |    |    |   |
|                                    | 6     | 5  | 4  | 3  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |    |    |    |   |
| Type 92 70mm Infantry Guns         | 4     | 2  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |    |    |    |   |
|                                    | 11    | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 7  | 6  |    |    |    |    |    |    |    |    |    |    |     |     |    |    |    |    |   |
| Year-41-Type 75mm Infantry Guns    | 8     | 5  | 3  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |    |    |    |   |
|                                    | 12    | 12 | 12 | 11 | 11 | 11 | 10 | 10 | 9  | 9  | 9  | 8  | 8  | 8  | 7  | 7  | 6  | 6  | 5  | 5  | 4  |     |     |    |    |    |    |   |
| Type 94 37mm Anti-Tank Guns        | 6     | 5  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |    |    |    |   |
|                                    | 6     | 5  | 4  | 3  | 2  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |    |    |    |   |
| Type 1 47mm Anti-Tank Guns         | 9     | 7  | 6  | 5  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |    |    |    |   |
|                                    | 6     | 6  | 5  | 5  | 4  | 4  | 3  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |    |    |    |   |
| Type 94 75mm Mountain Guns         | 8     | 5  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1  | 1  | 1  | 1  |   |
|                                    | 12    | 12 | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 11 | 10 | 10 | 10 | 10 | 9  | 9  | 9  | 9  | 9  | 9  | 9  | 9   | 9   | 9  | 9  | 9  | 6  |   |
| Improved Yr-38-Type 75mm Fld. Guns | 10    | 8  | 6  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1  | 1  | 1  | 1  |   |
|                                    | 12    | 12 | 12 | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 11 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 9  | 9   | 8   | 6  |    |    |    |   |

| JAPANESE<br>UNIT NAME             | RANGE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
|-----------------------------------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|--|--|--|--|--|--|
|                                   | 1     | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 |  |  |  |  |  |  |
| Type 90 75mm Field Guns           | 15    | 14 | 13 | 12 | 10 | 8  | 6  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |     |  |  |  |  |  |  |
|                                   | 12    | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 10 | 10 | 10 | 10 | 9  | 8  | 6  |    |    |    |    |     |     |  |  |  |  |  |  |
| Type 91 105mm Howitzers           | 10    | 8  | 6  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |     |  |  |  |  |  |  |
|                                   | 18    | 18 | 18 | 18 | 17 | 17 | 17 | 17 | 16 | 16 | 16 | 16 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 14 | 14 | 11 | 8  |    |    |    |    |     |     |  |  |  |  |  |  |
| Type 92 105mm Field Guns          | 15    | 13 | 10 | 8  | 6  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |     |  |  |  |  |  |  |
|                                   | 18    | 18 | 18 | 18 | 18 | 18 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 16 | 16 | 16 | 16 | 16 | 15 | 15 | 15 | 14 | 12 | 11 | 9  | 8  |    |     |     |  |  |  |  |  |  |
| Year-38-Type 120mm Howitzers      | 8     | 4  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   |  |  |  |  |  |  |
|                                   | 21    | 21 | 21 | 20 | 20 | 19 | 19 | 18 | 18 | 17 | 17 | 16 | 16 | 15 | 15 | 15 | 14 | 14 | 13 | 12 | 11 |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
| Year-4-Type 150mm Howitzers       | 14    | 12 | 9  | 6  | 3  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   | 2   |  |  |  |  |  |  |
|                                   | 24    | 24 | 24 | 24 | 23 | 23 | 23 | 23 | 22 | 22 | 22 | 21 | 21 | 21 | 20 | 20 | 20 | 19 | 19 | 19 | 19 | 16 |    |    |    |    |    |     |     |  |  |  |  |  |  |
| Type 96 150mm Howitzers           | 16    | 14 | 12 | 9  | 6  | 3  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   | 2   |  |  |  |  |  |  |
|                                   | 24    | 24 | 24 | 24 | 24 | 23 | 23 | 23 | 23 | 23 | 23 | 22 | 22 | 22 | 22 | 21 | 21 | 21 | 21 | 20 | 20 | 18 | 14 |    |    |    |    |     |     |  |  |  |  |  |  |
| Type 89 150mm Guns                | 18    | 16 | 14 | 12 | 9  | 6  | 3  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   | 2   |  |  |  |  |  |  |
|                                   | 24    | 24 | 24 | 24 | 24 | 24 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 20 | 18 | 17 | 15 | 13 | 11  |     |  |  |  |  |  |  |
| Year-3-Type 80mm DP Guns          | 8     | 7  | 6  | 5  | 4  | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
|                                   | 12    | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 7  | 7  | 6  | 6  | 5  | 5  |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
| Type 98 Twin 100mm DP Guns        | 50    | 48 | 46 | 44 | 42 | 40 | 38 | 36 | 34 | 32 | 30 | 28 | 26 | 24 | 22 | 20 | 18 | 16 | 14 | 12 |    |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
|                                   | 26    | 26 | 26 | 26 | 25 | 25 | 25 | 24 | 24 | 24 | 24 | 23 | 23 | 23 | 22 | 22 | 22 | 21 | 21 |    |    |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
| Year-10-Type 120mm DP Guns        | 40    | 38 | 36 | 34 | 32 | 30 | 28 | 26 | 24 | 22 | 20 | 18 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9  |    |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
|                                   | 21    | 21 | 21 | 21 | 20 | 20 | 20 | 20 | 19 | 19 | 19 | 18 | 18 | 18 | 17 | 17 | 17 | 16 | 16 | 16 |    |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
| Type 89 Twin 127mm DP Guns        | 36    | 34 | 32 | 31 | 29 | 27 | 25 | 23 | 22 | 20 | 18 | 16 | 14 | 14 | 13 | 12 | 11 | 10 | 9  | 8  |    |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
|                                   | 36    | 36 | 36 | 35 | 35 | 35 | 34 | 34 | 34 | 33 | 33 | 33 | 32 | 32 | 31 | 31 | 30 | 30 | 29 | 29 |    |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
| Year-3-Type 140mm Coast-Def. Guns | 60    | 57 | 54 | 51 | 48 | 45 | 42 | 39 | 36 | 33 | 30 | 28 | 26 | 24 | 22 | 20 | 18 | 17 | 16 | 15 |    |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
|                                   | 22    | 22 | 22 | 22 | 21 | 21 | 21 | 20 | 20 | 20 | 20 | 20 | 19 | 19 | 19 | 18 | 18 | 18 | 17 | 17 |    |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
| Type 96 150mm Coast-Def. Guns     | 20    | 18 | 16 | 14 | 12 | 9  | 6  | 3  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  |    |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
|                                   | 24    | 24 | 24 | 23 | 23 | 23 | 22 | 22 | 22 | 21 | 21 | 21 | 20 | 20 | 20 | 19 | 19 | 19 | 19 | 18 | 18 |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
| Type 93 Twin 13.2mm A-A Guns      | 3     | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
|                                   | 12    | 10 | 8  | 6  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
| Type 98 20mm Anti-Aircraft Guns   | 4     | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |  |  |  |
|                                   | 9     | 8  | 7  | 5  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |  |  |  |

| JAPANESE<br>UNIT NAME           | RANGE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 100 | 110 |    |
|---------------------------------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|----|
|                                 | 1     | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20  |     |    |
| Type 96 25mm Anti-Aircraft Guns | 5     | 3  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |
|                                 | 10    | 9  | 8  | 7  | 6  | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |
| Type 96 Twin 25mm A-A Guns      | 6     | 4  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |
|                                 | 15    | 14 | 13 | 11 | 9  | 7  |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |
| Type 96 Triple 25mm A-A Guns    | 7     | 5  | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |
|                                 | 20    | 18 | 16 | 14 | 12 | 10 |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |
| Type 88 75mm Anti-Aircraft Guns | 18    | 17 | 16 | 14 | 12 | 10 | 8  | 6  |    |    |    |    |    |    |    |    |    |    |    |     |     |    |
|                                 | 12    | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 7  | 7  | 6  | 6  | 5  | 5  |    |    |    |     |     |    |
| Type 99 88mm Anti-Aircraft Guns | 22    | 21 | 20 | 19 | 18 | 16 | 14 | 12 | 10 | 8  | 6  | 4  |    |    |    |    |    |    |    |     |     |    |
|                                 | 14    | 14 | 13 | 13 | 12 | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 7  | 7  | 6  | 6  |    |     |     |    |
| 120mm Naval Guns                | 10    | 10 | 9  | 9  | 8  | 8  | 7  | 7  | 6  | 6  | 5  | 5  | 4  | 4  | 3  | 3  | 2  | 2  | 1  | 1   | 1   |    |
|                                 | 24    | 24 | 24 | 24 | 24 | 24 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 22 | 22 | 22 | 22 | 22 | 20 | 18  | 16  | 13 |
| 140mm Naval Guns                | 12    | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 7  | 7  | 6  | 6  | 5  | 5  | 4  | 4  | 3  | 3   | 1   | 1  |
|                                 | 26    | 26 | 26 | 26 | 25 | 25 | 25 | 25 | 25 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 23 | 23 | 23 | 21  | 19  | 17 |
| 155mm Naval Guns                | 20    | 20 | 19 | 19 | 18 | 18 | 17 | 17 | 16 | 16 | 15 | 15 | 14 | 14 | 13 | 13 | 12 | 12 | 11 | 11  | 2   | 2  |
|                                 | 27    | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 25 | 25 | 24 | 23  | 21  | 20 |
| 200mm Naval Guns                | 24    | 24 | 23 | 23 | 22 | 22 | 21 | 21 | 20 | 20 | 19 | 19 | 18 | 18 | 17 | 17 | 16 | 16 | 15 | 15  | 6   | 4  |
|                                 | 33    | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 32 | 32 | 32 | 32 | 32 | 32 | 31 | 31 | 31 | 31 | 30 | 28  | 27  | 26 |
| 360mm Naval Guns                | 30    | 30 | 29 | 29 | 28 | 28 | 27 | 27 | 26 | 26 | 25 | 25 | 24 | 24 | 23 | 23 | 22 | 22 | 21 | 21  | 12  | 8  |
|                                 | 62    | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 60 | 59  | 57  | 56 |
| 410mm Naval Guns                | 34    | 34 | 33 | 33 | 32 | 32 | 31 | 31 | 30 | 30 | 29 | 29 | 28 | 28 | 27 | 27 | 26 | 26 | 25 | 25  | 16  | 10 |
|                                 | 70    | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 67 | 66  | 65  | 63 |
| Rifle Platoon (2nd line)        | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |
|                                 | 6     | 4  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |
| Rifle Platoon (1st line)        | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |
|                                 | 7     | 5  | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |
| Rifle Platoon (elite)           | 3     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |
|                                 | 8     | 6  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |
| Parachute Infantry Platoon      | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |
|                                 | 7     | 5  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |    |

Upper line is nominal Attack Strength vs. Hard (armored) Target  
Lower line is nominal Attack Strength vs. Soft (unarmored) Target

**Note:** Only armed units capable of ranged fire are listed in these Weapon Data charts; i.e., unarmed transport and leaders are not listed

## Appendices - Japanese Weapon Data

| JAPANESE<br>UNIT NAME            | RANGE |    |   |   |   |   |   |   |   |
|----------------------------------|-------|----|---|---|---|---|---|---|---|
|                                  | 1     | 2  | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| People's Volunteer Platoon       | 3     |    |   |   |   |   |   |   |   |
|                                  | 3     |    |   |   |   |   |   |   |   |
| Machinegun Section               | 2     |    |   |   |   |   |   |   |   |
|                                  | 9     | 7  | 5 | 3 |   |   |   |   |   |
| Machinegun Platoon               | 2     |    |   |   |   |   |   |   |   |
|                                  | 9     | 7  | 5 | 3 |   |   |   |   |   |
| Engineer Platoon                 | 10    |    |   |   |   |   |   |   |   |
|                                  | 8     | 4  |   |   |   |   |   |   |   |
| Anti-Tank Rifle Platoon          | 5     | 3  | 2 |   |   |   |   |   |   |
|                                  | 2     | 1  |   |   |   |   |   |   |   |
| Cavalry Platoon                  | 1     |    |   |   |   |   |   |   |   |
|                                  | 6     | 4  | 2 |   |   |   |   |   |   |
| Cavalry Platoon                  | 1     |    |   |   |   |   |   |   |   |
|                                  | 7     | 6  | 5 |   |   |   |   |   |   |
| Cavalry Platoon                  | 1     |    |   |   |   |   |   |   |   |
|                                  | 6     | 5  | 4 |   |   |   |   |   |   |
| Anti-Aircraft Machinegun Platoon | 2     |    |   |   |   |   |   |   |   |
|                                  | 9     | 7  | 5 | 3 |   |   |   |   |   |
| Heavy AA Machinegun Platoon      | 3     | 1  |   |   |   |   |   |   |   |
|                                  | 12    | 10 | 8 | 4 |   |   |   |   |   |

| JAPANESE<br>UNIT NAME | RANGE |   |   |   |   |   |   |   |   |
|-----------------------|-------|---|---|---|---|---|---|---|---|
|                       | 1     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Battalion HQ (foot)   | 2     |   |   |   |   |   |   |   |   |
|                       | 4     | 2 | 1 |   |   |   |   |   |   |
| Battalion HQ (mot.)   | 2     |   |   |   |   |   |   |   |   |
|                       | 4     | 2 | 1 |   |   |   |   |   |   |
| Regimental HQ (foot)  | 4     |   |   |   |   |   |   |   |   |
|                       | 6     | 3 | 1 |   |   |   |   |   |   |
| Regimental HQ (mot.)  | 4     |   |   |   |   |   |   |   |   |
|                       | 6     | 3 | 1 |   |   |   |   |   |   |
| Brigade HQ            | 4     |   |   |   |   |   |   |   |   |
|                       | 6     | 3 | 1 |   |   |   |   |   |   |
| Corps HQ              | 5     |   |   |   |   |   |   |   |   |
|                       | 10    | 5 | 2 |   |   |   |   |   |   |
| Army HQ               | 6     |   |   |   |   |   |   |   |   |
|                       | 12    | 6 | 3 |   |   |   |   |   |   |

Upper line is nominal Attack Strength vs. Hard (armored) Target  
Lower line is nominal Attack Strength vs. Soft (unarmored) Target

**Note:** Only *armed* units capable of ranged fire are listed in these Weapon Data charts; i.e., unarmed transport and leaders are not listed

| U.K./COMMONWEALTH<br>UNIT NAME        | Strength<br>Points | Victory<br>Points | Assault<br>Value | Defense<br>Value | Opt. Armor |   |   | Firing<br>Cost | Loading<br>Cost | Unload<br>Cost | Start<br>Month | Start<br>Year | End<br>Month | End<br>Year |
|---------------------------------------|--------------------|-------------------|------------------|------------------|------------|---|---|----------------|-----------------|----------------|----------------|---------------|--------------|-------------|
|                                       |                    |                   |                  |                  | F          | S | R |                |                 |                |                |               |              |             |
| Mark VIB Light Tanks                  | 3                  | 9                 | 3                | 4                | 4          | 1 | 1 | 40             | 0               | 0              | 2              | 42            | 3            | 42          |
| Stuart I Light Tanks                  | 3                  | 9                 | 4                | 4                | 4          | 2 | 2 | 45             | 0               | 0              | 3              | 42            | 1            | 43          |
| Stuart III Light Tanks                | 3                  | 9                 | 4                | 4                | 4          | 2 | 2 | 40             | 0               | 0              | 3              | 44            | 8            | 45          |
| Lee Medium Tanks                      | 3                  | 15                | 6                | 7                | 7          | 4 | 4 | 50             | 0               | 0              | 12             | 43            | 8            | 45          |
| Sherman Medium Tanks                  | 3                  | 15                | 7                | 8                | 8          | 4 | 4 | 35             | 0               | 0              | 12             | 44            | 8            | 45          |
| Matilda II Infantry Tanks             | 3                  | 15                | 3                | 10               | 10         | 8 | 7 | 35             | 0               | 0              | 10             | 43            | 8            | 45          |
| Matilda II Flamethrower Tanks         | 2                  | 10                | 6                | 10               | 10         | 8 | 7 | 35             | 0               | 0              | 7              | 45            | 8            | 45          |
| Valentine III Infantry Tanks          | 3                  | 12                | 3                | 7                | 7          | 6 | 5 | 40             | 0               | 0              | 2              | 44            | 10           | 44          |
| Daimler Scout Cars                    | 2                  | 4                 | 1                | 2                | 2          | 1 | 1 | 40             | 0               | 0              | 12             | 41            | 8            | 45          |
| Stuart Recce                          | 2                  | 6                 | 2                | 4                | 4          | 2 | 2 | 40             | 0               | 0              | 12             | 43            | 8            | 45          |
| Light Reconnaissance Cars             | 2                  | 4                 | 1                | 2                | 2          | 1 | 1 | 40             | 0               | 0              | 12             | 43            | 8            | 45          |
| Marmon-Herrington MFF Armoured Cars   | 3                  | 6                 | 2                | 2                | 2          | 1 | 1 | 40             | 0               | 0              | 12             | 41            | 12           | 42          |
| Humber III Armoured Cars              | 2                  | 6                 | 3                | 2                | 2          | 1 | 1 | 35             | 0               | 0              | 11             | 42            | 8            | 45          |
| Humber IV Armoured Cars               | 2                  | 8                 | 3                | 2                | 2          | 1 | 1 | 40             | 0               | 0              | 1              | 45            | 8            | 45          |
| Daimler Armoured Cars                 | 2                  | 8                 | 3                | 2                | 2          | 1 | 1 | 35             | 0               | 0              | 6              | 44            | 8            | 45          |
| Priest Self-Propelled 105mm Howitzers | 4                  | 28                | 1                | 3                | 3          | 1 | 1 | 50             | 0               | 0              | 11             | 44            | 8            | 45          |
| Carriers                              | 3                  | 9                 | 1                | 2                | 2          | 1 | 1 | 40             | 0               | 0              | 12             | 41            | 8            | 45          |
| MMG Carriers                          | 4                  | 8                 | 2                | 2                | 2          | 1 | 1 | 35             | 0               | 0              | 12             | 41            | 8            | 45          |
| Indian Pattern Carriers               | 6                  | 18                | 1                | 3                | 3          | 1 | 1 | 40             | 0               | 0              | 11             | 42            | 8            | 45          |
| DUKW Amphibious Trucks                | 6                  | 12                | 0                | 1                | 0          | 0 | 0 | 0              | 0               | 0              | 12             | 43            | 8            | 45          |
| 2pdr Portee Anti-Tank Trucks          | 6                  | 12                | 1                | 1                | 0          | 0 | 0 | 50             | 0               | 0              | 3              | 42            | 5            | 42          |
| Morris C9/B 40mm Anti-Aircraft Trucks | 6                  | 18                | 1                | 1                | 0          | 0 | 0 | 50             | 0               | 0              | 12             | 43            | 8            | 45          |
| Loyd Carriers                         | 6                  | 6                 | 0                | 1                | 0          | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 8            | 45          |
| Quad Field Artillery Tractors         | 6                  | 6                 | 0                | 1                | 0          | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 8            | 45          |
| Jeeps                                 | 4                  | 4                 | 0                | 1                | 0          | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 8            | 45          |
| Trucks                                | 6                  | 6                 | 0                | 1                | 0          | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 8            | 45          |
| Wagons                                | 6                  | 6                 | 0                | 1                | 0          | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 8            | 45          |

"Strength Points" are SP/platoon

"Victory Points" is VP/Platoon (of listed SP)

Appendices - u.k./commonwealth Unit Data

| U.K./COMMONWEALTH<br>UNIT NAME    | Strength<br>Points | Victory<br>Points | Assault<br>Value | Defense<br>Value | Opt. Armor<br>F | Opt. Armor<br>S | Opt. Armor<br>R | Firing<br>Cost | Loading<br>Cost | Unload<br>Cost | Start<br>Month | Start<br>Year | End<br>Month | End<br>Year |
|-----------------------------------|--------------------|-------------------|------------------|------------------|-----------------|-----------------|-----------------|----------------|-----------------|----------------|----------------|---------------|--------------|-------------|
| Boats                             | 6                  | 12                | 0                | 1                | 0               | 0               | 0               | 0              | 50              | 10             | 12             | 41            | 8            | 45          |
| Rafts                             | 6                  | 6                 | 0                | 1                | 0               | 0               | 0               | 0              | 50              | 10             | 12             | 41            | 8            | 45          |
| Landing Craft Personnel           | 6                  | 18                | 1                | 2                | 0               | 0               | 0               | 35             | 0               | 0              | 1              | 44            | 8            | 45          |
| Landing Craft Vehicle Personnel   | 6                  | 30                | 2                | 8                | 8               | 6               | 6               | 35             | 0               | 0              | 9              | 43            | 8            | 45          |
| Landing Craft Assault             | 6                  | 24                | 1                | 10               | 10              | 7               | 7               | 40             | 0               | 0              | 1              | 44            | 1            | 45          |
| Landing Craft Mechanized          | 6                  | 30                | 2                | 12               | 12              | 9               | 9               | 35             | 0               | 0              | 9              | 43            | 8            | 45          |
| Landing Craft Tank                | 6                  | 36                | 6                | 16               | 16              | 12              | 12              | 33             | 0               | 0              | 12             | 44            | 8            | 45          |
| OML 3-inch Mortars                | 2                  | 4                 | 0                | 3                | 0               | 0               | 0               | 40             | 50              | 50             | 12             | 41            | 8            | 42          |
| OML 3-inch Mortars                | 2                  | 6                 | 0                | 3                | 0               | 0               | 0               | 40             | 50              | 50             | 9              | 42            | 8            | 45          |
| OSB 4.2-inch Mortars              | 2                  | 8                 | 0                | 4                | 0               | 0               | 0               | 50             | 50              | 50             | 5              | 44            | 8            | 45          |
| OSB 4.2-inch Mortars              | 4                  | 16                | 0                | 4                | 0               | 0               | 0               | 50             | 50              | 50             | 5              | 44            | 8            | 45          |
| OQF 2-Pounder Anti-Tank Guns      | 4                  | 8                 | 0                | 4                | 0               | 0               | 0               | 35             | 50              | 25             | 12             | 41            | 8            | 45          |
| OQF 6-Pounder Anti-Tank Guns      | 2                  | 6                 | 0                | 4                | 0               | 0               | 0               | 40             | 50              | 25             | 12             | 43            | 8            | 45          |
| OQF 6-Pounder Anti-Tank Guns      | 4                  | 12                | 0                | 4                | 0               | 0               | 0               | 40             | 50              | 25             | 12             | 43            | 8            | 45          |
| OQF 75mm Mark 1 Anti-Tank Guns    | 4                  | 16                | 0                | 4                | 0               | 0               | 0               | 40             | 50              | 50             | 12             | 41            | 02           | 42          |
| OQF 75mm Mark 1 Pack Howitzers    | 3                  | 12                | 0                | 3                | 0               | 0               | 0               | 40             | 50              | 50             | 11             | 44            | 8            | 45          |
| OQF 18-Pounder Field Guns         | 4                  | 20                | 0                | 4                | 0               | 0               | 0               | 40             | 50              | 50             | 12             | 41            | 12           | 42          |
| OQF 25-Pounder (Short) Field Guns | 4                  | 20                | 0                | 4                | 0               | 0               | 0               | 35             | 50              | 50             | 7              | 43            | 8            | 45          |
| OQF 25-Pounder Field Guns         | 4                  | 20                | 0                | 4                | 0               | 0               | 0               | 35             | 50              | 50             | 12             | 41            | 8            | 45          |
| OQF 3.7-inch Mountain Howitzers   | 4                  | 20                | 0                | 4                | 0               | 0               | 0               | 40             | 50              | 50             | 12             | 41            | 8            | 45          |
| OQF 4.5-inch Howitzers            | 4                  | 20                | 0                | 3                | 0               | 0               | 0               | 40             | 50              | 50             | 12             | 41            | 12           | 42          |
| OBL 5.5-inch Gun-Howitzers        | 4                  | 24                | 0                | 3                | 0               | 0               | 0               | 50             | 50              | 50             | 12             | 43            | 8            | 45          |
| OBL 6-inch Howitzers              | 4                  | 20                | 0                | 2                | 0               | 0               | 0               | 50             | 50              | 50             | 12             | 41            | 8            | 45          |
| OBL 7.2-inch Howitzers Mk I       | 4                  | 24                | 0                | 2                | 0               | 0               | 0               | 100            | 100             | 100            | 10             | 44            | 8            | 45          |
| OQF 40mm Anti-Aircraft Guns       | 4                  | 12                | 0                | 3                | 0               | 0               | 0               | 33             | 50              | 50             | 12             | 41            | 8            | 45          |
| OQF 40mm Anti-Aircraft Guns       | 6                  | 18                | 0                | 3                | 0               | 0               | 0               | 33             | 50              | 50             | 12             | 41            | 8            | 45          |
| OQF 3-inch Anti-Aircraft Guns     | 4                  | 16                | 0                | 3                | 0               | 0               | 0               | 100            | 100             | 100            | 12             | 41            | 8            | 45          |

"Strength Points" are SP/platoon

"Victory Points" is VP/Platoon (of listed SP)

| U.K/COMMONWEALTH<br>UNIT NAME    | Strength<br>Points | Victory<br>Points | Assault<br>Value | Defense<br>Value | Opt.Armor |   |   | Firing<br>Cost | Loading<br>Cost | Unload<br>Cost | Start<br>Month | Start<br>Year | End<br>Month | End<br>Year |
|----------------------------------|--------------------|-------------------|------------------|------------------|-----------|---|---|----------------|-----------------|----------------|----------------|---------------|--------------|-------------|
| OQF 3.7-inch Anti-Aircraft Guns  | 4                  | 16                | 0                | 3                | 0         | 0 | 0 | 100            | 100             | 100            | 12             | 41            | 8            | 45          |
| 4-inch Naval Guns                | 3                  | -                 | 0                | 0                | 0         | 0 | 0 | 33             | 0               | 0              | 12             | 41            | 8            | 45          |
| 4.7-inch Naval Guns              | 4                  | -                 | 0                | 0                | 0         | 0 | 0 | 33             | 0               | 0              | 12             | 41            | 8            | 45          |
| 5.25-inch Naval Guns             | 4                  | -                 | 0                | 0                | 0         | 0 | 0 | 33             | 0               | 0              | 12             | 41            | 8            | 45          |
| 6-inch Naval Guns                | 3                  | -                 | 0                | 0                | 0         | 0 | 0 | 50             | 0               | 0              | 12             | 41            | 8            | 45          |
| 8-inch Naval Guns                | 4                  | -                 | 0                | 0                | 0         | 0 | 0 | 50             | 0               | 0              | 12             | 41            | 8            | 45          |
| 14-inch Naval Guns               | 5                  | -                 | 0                | 0                | 0         | 0 | 0 | 100            | 0               | 0              | 12             | 41            | 8            | 45          |
| 15-inch Naval Guns               | 4                  | -                 | 0                | 0                | 0         | 0 | 0 | 100            | 0               | 0              | 12             | 41            | 8            | 45          |
| 16-inch Naval Guns               | 3                  | -                 | 0                | 0                | 0         | 0 | 0 | 100            | 0               | 0              | 12             | 41            | 8            | 45          |
| Carrier Rifle Section            | 3                  | 3                 | 2                | 3                | 0         | 0 | 0 | 35             | 50              | 25             | 12             | 41            | 8            | 45          |
| Rifle Platoon                    | 6                  | 18                | 4                | 7                | 0         | 0 | 0 | 35             | 50              | 25             | 12             | 41            | 6            | 43          |
| Rifle Platoon                    | 6                  | 18                | 4                | 7                | 0         | 0 | 0 | 35             | 50              | 25             | 7              | 43            | 8            | 45          |
| Burma Rifles Platoon             | 6                  | 18                | 3                | 6                | 0         | 0 | 0 | 35             | 50              | 25             | 12             | 41            | 8            | 45          |
| Parachute Infantry Platoon       | 6                  | 24                | 6                | 8                | 0         | 0 | 0 | 35             | 50              | 25             | 7              | 43            | 8            | 45          |
| Commando Platoon                 | 6                  | 24                | 6                | 7                | 0         | 0 | 0 | 35             | 50              | 25             | 1              | 44            | 8            | 45          |
| Native Irregular Platoon         | 6                  | 12                | 2                | 6                | 0         | 0 | 0 | 50             | 50              | 25             | 12             | 41            | 8            | 45          |
| Engineer Platoon                 | 6                  | 24                | 7                | 7                | 0         | 0 | 0 | 35             | 50              | 50             | 12             | 41            | 8            | 45          |
| Machinegun Section               | 2                  | 6                 | 1                | 4                | 0         | 0 | 0 | 35             | 50              | 25             | 12             | 41            | 8            | 45          |
| Machinegun Platoon               | 4                  | 12                | 2                | 7                | 0         | 0 | 0 | 35             | 50              | 25             | 12             | 41            | 8            | 45          |
| Anti-Aircraft Machinegun Platoon | 2                  | 4                 | 2                | 4                | 0         | 0 | 0 | 35             | 50              | 50             | 12             | 41            | 8            | 45          |

"Strength Points" are SP/platoon

"Victory Points" is VP/Platoon (of listed SP)

Appendices - u.k./commonwealth Unit Data

| U.K./COMMONWEALTH<br>UNIT NAME | Strength<br>Points | Victory<br>Points | Assault<br>Value | Defense<br>Value | Opt. Armor |   |   | Firing<br>Cost | Loading<br>Cost | Unload<br>Cost | Start<br>Month | Start<br>Year | End<br>Month | End<br>Year |
|--------------------------------|--------------------|-------------------|------------------|------------------|------------|---|---|----------------|-----------------|----------------|----------------|---------------|--------------|-------------|
|                                |                    |                   |                  |                  | F          | S | R |                |                 |                |                |               |              |             |
| Battalion HQ (foot)            | 2                  | 18                | 0                | 2                | 0          | 0 | 0 | 35             | 50              | 50             | 12             | 41            | 8            | 45          |
| Battalion HQ (mot.)            | 2                  | 24                | 0                | 2                | 0          | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 8            | 45          |
| Regimental HQ (foot)           | 3                  | 21                | 0                | 3                | 0          | 0 | 0 | 35             | 50              | 50             | 12             | 41            | 8            | 45          |
| Regimental HQ (mot.)           | 3                  | 27                | 0                | 3                | 0          | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 8            | 45          |
| Brigade HQ                     | 3                  | 30                | 0                | 3                | 0          | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 8            | 45          |
| Divisional HQ                  | 4                  | 40                | 0                | 4                | 0          | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 8            | 45          |
| Corps HQ                       | 5                  | 45                | 0                | 5                | 0          | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 8            | 45          |
| Army HQ                        | 6                  | 54                | 0                | 6                | 0          | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 8            | 45          |
| Commander 1                    | 1*                 | 4                 | 0                | 1                | 0          | 0 | 0 | 0              | 10              | 10             | 12             | 41            | 8            | 45          |
| Commander 2                    | 2*                 | 8                 | 0                | 1                | 0          | 0 | 0 | 0              | 10              | 10             | 12             | 41            | 8            | 45          |
| Commander 3                    | 3*                 | 12                | 0                | 1                | 0          | 0 | 0 | 0              | 10              | 10             | 12             | 41            | 8            | 45          |
| Commander 4                    | 4*                 | 16                | 0                | 1                | 0          | 0 | 0 | 0              | 10              | 10             | 12             | 41            | 8            | 45          |
| Commander 5                    | 5*                 | 20                | 0                | 1                | 0          | 0 | 0 | 0              | 10              | 10             | 12             | 41            | 8            | 45          |
| Commander 1 (mot.)             | 1*                 | 6                 | 0                | 1                | 0          | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 8            | 45          |
| Commander 2 (mot.)             | 2*                 | 12                | 0                | 1                | 0          | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 8            | 45          |
| Commander 3 (mot.)             | 3*                 | 18                | 0                | 1                | 0          | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 8            | 45          |
| Commander 4 (mot.)             | 4*                 | 24                | 0                | 1                | 0          | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 8            | 45          |
| Commander 5 (mot.)             | 5*                 | 30                | 0                | 1                | 0          | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 8            | 45          |

"Strength Points" are SP/platoon

"Victory Points" is VP/Platoon (of listed SP)

| U.K./COMMONWEALTH<br>UNIT NAME   | RANGE |    |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
|----------------------------------|-------|----|----|----|----|----|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|--|--|--|
|                                  | 1     | 2  | 3  | 4  | 5  | 6  | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 |  |  |  |
| Mark VIB Light Tanks             | 2     |    |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
|                                  | 4     | 2  | 1  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
| Stuart I Light Tanks             | 8     | 6  | 4  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
|                                  | 3     | 2  | 1  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
| Stuart III Light Tanks           | 8     | 6  | 4  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
|                                  | 10    | 4  | 3  | 2  | 1  | 1  |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
| Lee Medium Tanks                 | 17    | 16 | 15 | 13 | 11 | 9  | 7 | 5 |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
|                                  | 12    | 12 | 11 | 11 | 10 | 10 | 9 | 9 | 8 | 8  | 8  | 7  | 6  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
| Sherman Medium Tanks             | 18    | 17 | 16 | 14 | 12 | 10 | 8 | 6 |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
|                                  | 12    | 12 | 11 | 11 | 10 | 10 | 9 | 9 | 8 | 8  | 8  | 7  | 6  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
| Matilda II Infantry Tanks        | 8     | 6  | 4  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
|                                  | 9     | 9  | 8  | 6  | 5  | 4  | 3 | 2 |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
| Matilda II Flamethrower Tanks    | 1     |    |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
|                                  | 2     | 1  |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
| Valentine III Infantry Tanks     | 8     | 6  | 4  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
|                                  | 12    | 9  | 8  | 6  | 5  | 4  |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
| Daimler Scout Cars               | 2     |    |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
|                                  | 3     | 2  | 1  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
| Stuart Recce                     | 2     |    |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
|                                  | 3     | 2  | 1  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
| Light Reconnaissance Cars        | 3     | 1  |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
|                                  | 3     | 2  | 1  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
| Marmon-Herrington MFF Arm'd Cars | 3     | 1  |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
|                                  | 3     | 2  | 1  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
| Humber III Armoured Cars         | 3     | 2  |    |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
|                                  | 9     | 8  | 7  | 5  | 4  |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
| Humber IV Armoured Cars          | 9     | 6  | 4  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
|                                  | 10    | 5  | 3  | 2  | 1  | 1  |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
| Daimler Armoured Cars            | 8     | 6  | 4  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |
|                                  | 2     | 1  | 1  |    |    |    |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |  |

Upper line is nominal Attack Strength vs. Hard (armored) Target  
Lower line is nominal Attack Strength vs. Soft (unarmored) Target

**Note:** Only *armed* units capable of ranged fire are listed in these Weapon Data charts; i.e., unarmed transport and leaders are not listed

| U.K./COMMONWEALTH<br>UNIT NAME  | RANGE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|---------------------------------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|--|--|
|                                 | 1     | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 |  |  |
| Priest S-P 105mm Howitzers      | 10    | 8  | 6  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |     |  |  |
|                                 | 18    | 18 | 18 | 18 | 18 | 17 | 17 | 17 | 17 | 16 | 16 | 16 | 16 | 15 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 14 | 11 | 8  |    |    |    |     |     |  |  |
| Carriers                        | 1     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                 | 2     | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| MMG Carriers                    | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                 | 10    | 8  | 6  | 4  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| Indian Pattern Carriers         | 4     | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                 | 3     | 2  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| 2pdr Portee Anti-Tank Trucks    | 7     | 5  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                 | 2     | 2  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| Morris C9/B 40mm A-A Trucks     | 6     | 5  | 4  | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                 | 14    | 13 | 12 | 11 | 10 | 9  | 8  | 7  | 6  | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| Landing Craft Personnel         | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                 | 3     | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| Landing Craft Vehicle Personnel | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                 | 4     | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| Landing Craft Assault           | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                 | 3     | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| Landing Craft Mechanized        | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                 | 4     | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| Landing Craft Tank              | 4     | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                 | 9     | 8  | 6  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| OML 3-inch Mortars (early)      | 0     | 2  | 2  | 1  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                 | 0     | 12 | 11 | 10 | 8  | 6  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| OML 3-inch Mortars (9/42+)      | 2     | 2  | 2  | 2  | 2  | 2  | 2  | 1  | 1  | 1  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                 | 14    | 13 | 12 | 11 | 10 | 9  | 8  | 7  | 6  | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| OSB 4.2-inch Mortars            | 0     | 0  | 0  | 3  | 3  | 3  | 3  | 2  | 2  | 2  | 2  | 2  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |     |  |  |
|                                 | 0     | 0  | 0  | 16 | 15 | 15 | 14 | 13 | 13 | 12 | 11 | 11 | 10 | 9  | 9  | 9  | 8  |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| QF 2-Pounder Anti-Tank Guns     | 8     | 6  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                 | 2     | 2  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |

Upper line is nominal Attack Strength vs. Hard (armored) Target  
Lower line is nominal Attack Strength vs. Soft (unarmored) Target

**Note:** Only *armed* units capable of ranged fire are listed in these Weapon Data charts; i.e., unarmed transport and leaders are not listed

| U.K./COMMONWEALTH<br>UNIT NAME    | RANGE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|-----------------------------------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
|                                   | 1     | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| OQF 6-Pounder Anti-Tank Guns      | 19    | 17 | 14 | 12 | 10 | 8  | 6  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                   | 8     | 8  | 8  | 7  | 7  | 7  | 6  | 6  | 5  | 5  | 4  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| OQF 75mm Mark 1 Anti-Tank Guns    | 16    | 14 | 12 | 10 | 8  | 6  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                   | 11    | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 7  | 6  | 5  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| OQF 75mm Mark 1 Pack Howitzers    | 8     | 5  | 3  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |     |
|                                   | 12    | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 10 | 10 | 10 | 10 | 9  | 9  | 9  | 9  | 8  | 8  | 8  | 8  | 8  | 8  | 6  |    |    |    |    |     |
| OQF 18-Pounder Field Guns         | 15    | 12 | 9  | 6  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |     |
|                                   | 12    | 12 | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 10 | 10 | 10 | 10 | 10 | 10 | 9  | 9  | 9  | 9  | 9  | 9  | 9  | 9  | 7  |    |    |    |     |
| OQF 25-Pounder (Short) Field Guns | 9     | 6  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |     |
|                                   | 15    | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 14 | 13 | 13 | 13 | 13 | 12 | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 11 | 8  |    |    |    |    |     |
| OQF 25-Pounder Field Guns         | 18    | 15 | 12 | 9  | 6  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |     |
|                                   | 15    | 15 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 14 | 14 | 14 | 13 | 13 | 13 | 13 | 13 | 12 | 12 | 12 | 12 | 10 | 9  | 7  |    |    |    |     |
| OQF 3.7-inch Mountain Howitzers   | 8     | 6  | 4  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |     |
|                                   | 12    | 12 | 12 | 12 | 11 | 11 | 11 | 10 | 10 | 10 | 9  | 9  | 9  | 8  | 8  | 8  | 7  | 7  | 7  | 7  | 6  |    |    |    |    |    |    |     |
| OQF 4.5-inch Howitzers            | 8     | 6  | 4  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |     |
|                                   | 18    | 18 | 18 | 17 | 17 | 17 | 16 | 16 | 15 | 15 | 15 | 14 | 14 | 13 | 13 | 13 | 13 | 12 | 12 | 11 | 11 |    |    |    |    |    |    |     |
| OBL 5.5-inch Gun-Howitzers        | 10    | 8  | 5  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |     |
|                                   | 21    | 21 | 21 | 21 | 21 | 21 | 20 | 20 | 20 | 20 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 18 | 18 | 18 | 18 | 17 | 15 | 13 | 12 |    |    |     |
| OBL 6-inch Howitzers              | 10    | 8  | 6  | 4  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  |     |
|                                   | 24    | 24 | 24 | 23 | 23 | 23 | 22 | 22 | 22 | 21 | 21 | 21 | 20 | 20 | 20 | 19 | 19 | 19 | 18 | 18 | 18 | 15 | 12 |    |    |    |    |     |
| OBL 7.2-inch Howitzers Mk I       | 10    | 8  | 5  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |     |
|                                   | 28    | 28 | 28 | 28 | 27 | 27 | 27 | 27 | 26 | 26 | 26 | 26 | 25 | 25 | 25 | 25 | 25 | 24 | 24 | 22 | 19 | 17 | 14 |    |    |    |    |     |
| OQF 40mm Anti-Aircraft Guns       | 6     | 5  | 4  | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                   | 14    | 13 | 12 | 11 | 10 | 9  | 8  | 7  | 6  | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| OQF 3-inch Anti-Aircraft Guns     | 4     | 3  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                   | 12    | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 7  | 6  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| OQF 3.7-inch Anti-Aircraft Guns   | 5     | 4  | 3  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                   | 16    | 16 | 16 | 15 | 15 | 15 | 14 | 14 | 13 | 13 | 12 | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 8  |    |    |    |    |    |    |     |

| U.K./COMMONWEALTH<br>UNIT NAME | RANGE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|--------------------------------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|--|--|
|                                | 1     | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 |  |  |
| 4-inch Naval Guns              | 8     | 8  | 7  | 7  | 6  | 6  | 5  | 5  | 4  | 4  | 3  | 3  | 2  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |     |     |  |  |
|                                | 21    | 21 | 21 | 21 | 21 | 21 | 21 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 19 | 19 | 19 | 19 | 19 | 19 | 17 | 15 | 12 | 10 |    |    |    |     |     |  |  |
| 4.7-inch Naval Guns            | 9     | 9  | 8  | 8  | 7  | 7  | 6  | 6  | 5  | 5  | 4  | 4  | 3  | 3  | 2  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |     |  |  |
|                                | 23    | 23 | 23 | 23 | 23 | 23 | 23 | 22 | 22 | 22 | 22 | 22 | 22 | 21 | 21 | 21 | 21 | 21 | 21 | 19 | 17 | 14 | 12 |    |    |    |    |     |     |  |  |
| 5.25-inch Naval Guns           | 11    | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 7  | 7  | 6  | 6  | 5  | 5  | 4  | 4  | 3  | 3  | 2  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |     |  |  |
|                                | 25    | 25 | 25 | 25 | 25 | 25 | 25 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 23 | 23 | 23 | 23 | 23 | 21 | 20 | 18 | 15 | 13 |    |    |    |     |     |  |  |
| 6-inch Naval Guns              | 20    | 20 | 19 | 19 | 18 | 18 | 17 | 17 | 16 | 16 | 15 | 15 | 14 | 14 | 13 | 13 | 12 | 12 | 11 | 11 | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   | 2   |  |  |
|                                | 27    | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 25 | 25 | 24 | 23 | 21 | 20 | 18 | 16 | 14 |    |    |     |     |  |  |
| 8-inch Naval Guns              | 24    | 24 | 23 | 23 | 22 | 22 | 21 | 21 | 20 | 20 | 19 | 19 | 18 | 18 | 17 | 17 | 16 | 16 | 15 | 15 | 6  | 5  | 5  | 5  | 5  | 5  | 5  | 5   | 5   |  |  |
|                                | 33    | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 31 | 31 | 31 | 31 | 30 | 28 | 27 | 26 | 24 | 22 | 21 | 19 | 17  |     |  |  |
| 14-inch Naval Guns             | 30    | 30 | 29 | 29 | 28 | 28 | 27 | 27 | 26 | 26 | 25 | 25 | 24 | 24 | 23 | 23 | 22 | 22 | 21 | 21 | 12 | 8  | 8  | 8  | 8  | 8  | 8  | 8   | 8   |  |  |
|                                | 62    | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 60 | 59 | 57 | 56 | 55 | 54 | 53 | 51 | 50  |     |  |  |
| 15-inch Naval Guns             | 32    | 32 | 31 | 31 | 30 | 30 | 29 | 29 | 28 | 28 | 27 | 27 | 26 | 26 | 25 | 25 | 24 | 24 | 23 | 23 | 14 | 9  | 9  | 9  | 9  | 9  | 9  | 9   | 9   |  |  |
|                                | 66    | 66 | 66 | 66 | 66 | 66 | 66 | 66 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 64 | 64 | 63 | 62 | 61 | 59 | 58 | 57 | 55 | 54 | 52  |     |  |  |
| 16-inch Naval Guns             | 34    | 34 | 33 | 33 | 32 | 32 | 31 | 31 | 30 | 30 | 29 | 29 | 28 | 28 | 27 | 27 | 26 | 26 | 25 | 25 | 16 | 10 | 10 | 10 | 10 | 10 | 10 | 10  | 10  |  |  |
|                                | 70    | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 67 | 66 | 65 | 63 | 62 | 61 | 59 | 58 | 56 |     |     |  |  |
| Carrier Rifle Section          | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                | 5     | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| Rifle Platoon (early)          | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                | 9     | 6  | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| Rifle Platoon (7/43+)          | 12    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                | 9     | 6  | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| Burma Rifles Platoon           | 1     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                | 8     | 5  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| Parachute Infantry Platoon     | 12    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                | 10    | 5  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
| Commando Platoon               | 3     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |
|                                | 10    | 5  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |  |  |

| U.K./COMMONWEALTH<br>UNIT NAME   | RANGE |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|----------------------------------|-------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
|                                  | 1     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| Native Irregular Platoon         | 1     |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                  | 5     | 2 |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Engineer Platoon                 | 12    |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                  | 7     | 4 | 2 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Machinegun Section               | 2     |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                  | 10    | 9 | 8 | 6 | 4 | 2 |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Machinegun Platoon               | 2     |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                  | 10    | 9 | 8 | 6 | 4 | 2 |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Anti-Aircraft Machinegun Platoon | 2     |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                  | 8     | 6 | 4 | 2 |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Battalion HQ (foot)              | 2     |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                  | 4     | 2 | 1 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Battalion HQ (mot.)              | 2     |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                  | 4     | 2 | 1 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Regimental HQ (foot)             | 4     |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                  | 6     | 3 | 1 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Regimental HQ (mot.)             | 4     |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                  | 6     | 3 | 1 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Brigade HQ                       | 4     |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                  | 6     | 3 | 1 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Divisional HQ                    | 4     |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                  | 8     | 4 | 2 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Corps HQ                         | 5     |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                  | 10    | 5 | 2 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| Army HQ                          | 6     |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|                                  | 12    | 6 | 3 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |

Upper line is nominal Attack Strength vs. Hard (armored) Target  
Lower line is nominal Attack Strength vs. Soft (unarmored) Target

**Note:** Only *armed* units capable of ranged fire are listed in these Weapon Data charts; i.e., unarmed transport and leaders are not listed

## Appendices - united states Unit Data

|  <b>UNITED STATES</b><br><b>UNIT NAME</b> | Strength | Victory | Assault | Defense | Opt.Armor |   |   | Firing | Loading | Unload | Start | Start | End   | End  |
|---|----------|---------|---------|---------|-----------|---|---|--------|---------|--------|-------|-------|-------|------|
|   | Points   | Points  | Value   | Value   | F         | S | R | Cost   | Cost    | Cost   | Month | Year  | Month | Year |
| M2A4 Light Tanks  | 5        | 15      | 4       | 3       | 3         | 2 | 1 | 40     | 0       | 0      | 8     | 42    | 12    | 42   |
| M3 Light Tanks  | 5        | 15      | 4       | 4       | 4         | 2 | 2 | 40     | 0       | 0      | 12    | 41    | 12    | 42   |
| M3A1 Light Tanks  | 5        | 15      | 4       | 4       | 4         | 2 | 2 | 40     | 0       | 0      | 8     | 42    | 12    | 44   |
| M3A1 Flamethrower Light Tanks   | 4        | 12      | 18      | 4       | 4         | 2 | 2 | 40     | 0       | 0      | 6     | 44    | 12    | 46   |
| M5A1 Light Tanks  | 5        | 15      | 4       | 5       | 5         | 2 | 2 | 40     | 0       | 0      | 2     | 44    | 12    | 46   |
| M24 Light Tanks   | 5        | 20      | 6       | 6       | 6         | 3 | 3 | 35     | 0       | 0      | 11    | 45    | 12    | 46   |
| M3 Medium Tanks   | 5        | 25      | 6       | 7       | 7         | 4 | 4 | 50     | 0       | 0      | 11    | 43    | 11    | 43   |
| M4 Medium Tanks   | 5        | 25      | 7       | 8       | 8         | 4 | 4 | 35     | 0       | 0      | 12    | 43    | 12    | 46   |
| M4A2 Medium Tanks   | 4        | 20      | 7       | 8       | 8         | 4 | 4 | 35     | 0       | 0      | 11    | 43    | 4     | 44   |
| M4A2 Medium Tanks   | 3        | 15      | 8       | 8       | 8         | 4 | 4 | 35     | 0       | 0      | 5     | 44    | 4     | 45   |
| M4A2 Medium Tanks   | 3        | 15      | 9       | 8       | 8         | 4 | 4 | 35     | 0       | 0      | 5     | 45    | 12    | 46   |
| M4(76)W Medium Tanks  | 5        | 30      | 7       | 9       | 9         | 5 | 5 | 35     | 0       | 0      | 11    | 45    | 12    | 46   |
| M4(105) Medium Tanks  | 3        | 18      | 8       | 9       | 9         | 4 | 4 | 40     | 0       | 0      | 10    | 44    | 12    | 46   |
| POA-CWS-H1 Flamethrower Tanks   | 3        | 15      | 18      | 9       | 8         | 4 | 4 | 35     | 0       | 0      | 2     | 45    | 10    | 45   |
| POA-CWS-H1 Flamethrower Tanks   | 5        | 25      | 18      | 9       | 8         | 4 | 4 | 35     | 0       | 0      | 4     | 45    | 12    | 46   |
| POA-CWS-H5 Flamethrower Tanks   | 3        | 21      | 20      | 9       | 8         | 4 | 4 | 40     | 0       | 0      | 11    | 45    | 12    | 46   |
| POA-CWS-H5 Flamethrower Tanks   | 5        | 35      | 20      | 9       | 8         | 4 | 4 | 40     | 0       | 0      | 11    | 45    | 12    | 46   |
| M26 Heavy Tanks   | 5        | 35      | 8       | 13      | 21        | 9 | 9 | 35     | 0       | 0      | 10    | 45    | 12    | 46   |
| M45 Heavy Tanks   | 3        | 21      | 8       | 14      | 23        | 9 | 9 | 35     | 0       | 0      | 10    | 45    | 12    | 46   |
| T4 Mine Exploder Tanks  | 5        | 25      | 3       | 8       | 8         | 4 | 4 | 35     | 0       | 0      | 11    | 45    | 12    | 46   |
| M10 GMC 76mm Tank Destroyers  | 4        | 20      | 2       | 6       | 8         | 3 | 3 | 35     | 0       | 0      | 10    | 43    | 12    | 46   |
| M18 GMC 76mm Tank Destroyers  | 4        | 20      | 2       | 3       | 3         | 1 | 1 | 35     | 0       | 0      | 1     | 45    | 12    | 46   |
| M36 GMC 90mm Tank Destroyers  | 4        | 20      | 2       | 6       | 8         | 3 | 3 | 35     | 0       | 0      | 11    | 45    | 12    | 46   |
| M3 Halftracks   | 6        | 18      | 1       | 2       | 2         | 1 | 1 | 40     | 0       | 0      | 12    | 41    | 12    | 46   |
| M4 81mm Mortar Halftracks   | 3        | 9       | 1       | 2       | 2         | 1 | 1 | 50     | 0       | 0      | 2     | 44    | 12    | 46   |
| M3 GMC 75mm Gun Halftracks  | 4        | 16      | 2       | 2       | 2         | 1 | 1 | 50     | 0       | 0      | 12    | 41    | 4     | 42   |
| M3 GMC 75mm Gun Halftracks  | 2        | 8       | 2       | 2       | 2         | 1 | 1 | 50     | 0       | 0      | 11    | 42    | 4     | 44   |

"Strength Points" are SP/platoon

"Victory Points" is VP/Platoon (of listed SP)

| UNITED STATES<br>UNIT NAME              | Strength<br>Points | Victory<br>Points | Assault<br>Value | Defense<br>Value | F | S | R | Firing<br>Cost | Loading<br>Cost | Unload<br>Cost | Start<br>Month | Start<br>Year | End<br>Month | End<br>Year |
|---|--------------------|-------------------|------------------|------------------|---|---|---|----------------|-----------------|----------------|----------------|---------------|--------------|-------------|
| M3 GMC 75mm Gun Halftracks              | 4                  | 16                | 2                | 2                | 2 | 1 | 1 | 50             | 0               | 0              | 5              | 44            | 4            | 45          |
| M15A1 MGMC 37mm AA Halftracks           | 4                  | 16                | 3                | 2                | 2 | 1 | 1 | 33             | 0               | 0              | 1              | 45            | 12           | 46          |
| M16 MGMC Quad .50-cal AA Halftracks     | 4                  | 16                | 4                | 2                | 2 | 1 | 1 | 33             | 0               | 0              | 1              | 45            | 12           | 46          |
| M19 GMC Twin 40mm Anti-Aircraft Tanks   | 4                  | 16                | 4                | 2                | 2 | 2 | 1 | 33             | 0               | 0              | 11             | 45            | 12           | 46          |
| M3A1 Scout Car Section                  | 3                  | 9                 | 2                | 2                | 2 | 1 | 1 | 40             | 0               | 0              | 12             | 41            | 4            | 44          |
| M8 Armored Car Section                  | 3                  | 12                | 3                | 2                | 2 | 1 | 1 | 40             | 0               | 0              | 5              | 44            | 12           | 46          |
| M8 HMC Self-Propelled 75mm Howitzers    | 2                  | 10                | 4                | 5                | 5 | 2 | 2 | 40             | 0               | 0              | 11             | 45            | 12           | 46          |
| M8 HMC Self-Propelled 75mm Howitzers    | 3                  | 15                | 4                | 5                | 5 | 2 | 2 | 40             | 0               | 0              | 2              | 44            | 12           | 46          |
| M7 HMC Self-Propelled 105mm Howitzers   | 4                  | 24                | 1                | 3                | 3 | 1 | 1 | 50             | 0               | 0              | 5              | 45            | 12           | 46          |
| M7 HMC Self-Propelled 105mm Howitzers   | 6                  | 36                | 1                | 3                | 3 | 1 | 1 | 50             | 0               | 0              | 10             | 44            | 12           | 46          |
| M37 HMC Self-Propelled 105mm Howitzers  | 4                  | 24                | 1                | 2                | 2 | 2 | 1 | 50             | 0               | 0              | 11             | 45            | 12           | 46          |
| M41 HMC Self-Propelled 155mm Howitzers  | 4                  | 28                | 1                | 2                | 2 | 2 | 1 | 50             | 0               | 0              | 11             | 45            | 12           | 46          |
| M40 GMC Self-Propelled 155mm Guns       | 4                  | 28                | 1                | 4                | 4 | 1 | 1 | 100            | 0               | 0              | 11             | 45            | 12           | 46          |
| M43 HMC Self-Propelled 8-inch Howitzers | 4                  | 32                | 1                | 4                | 4 | 1 | 1 | 100            | 0               | 0              | 11             | 45            | 12           | 46          |
| T93 GMC Self-Propelled 8-inch Guns      | 4                  | 32                | 1                | 4                | 4 | 1 | 1 | 100            | 0               | 0              | 11             | 45            | 12           | 46          |
| T92 HMC Self-Propelled 240mm Howitzers  | 4                  | 32                | 1                | 4                | 4 | 1 | 1 | 100            | 0               | 0              | 11             | 45            | 12           | 46          |
| Jeep Scout Section                      | 3                  | 3                 | 2                | 1                | 0 | 0 | 0 | 40             | 0               | 0              | 12             | 41            | 12           | 46          |
| Jeeps                                   | 4                  | 4                 | 0                | 1                | 0 | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 12           | 46          |
| Trucks                                  | 6                  | 6                 | 0                | 1                | 0 | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 12           | 46          |
| Wagons                                  | 6                  | 6                 | 0                | 1                | 0 | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 5            | 42          |
| LVT2 Amphibious Personnel Carriers      | 6                  | 18                | 2                | 2                | 0 | 0 | 0 | 40             | 0               | 0              | 11             | 43            | 6            | 45          |
| LVT(A)2 Amphibious Personnel Carriers   | 6                  | 24                | 2                | 2                | 2 | 1 | 1 | 40             | 0               | 0              | 2              | 44            | 6            | 45          |
| LVT4 Amphibious Personnel Carriers      | 6                  | 24                | 2                | 2                | 2 | 1 | 1 | 40             | 0               | 0              | 6              | 44            | 12           | 46          |
| LVT(A)1 Amphibious Tanks                | 6                  | 30                | 5                | 2                | 2 | 1 | 1 | 40             | 0               | 0              | 2              | 43            | 12           | 44          |
| LVT(A)4 Amphibious Tanks                | 6                  | 30                | 4                | 4                | 3 | 2 | 1 | 40             | 0               | 0              | 6              | 44            | 12           | 46          |
| DUKW Amphibious Trucks                  | 6                  | 12                | 0                | 1                | 0 | 0 | 0 | 0              | 0               | 0              | 3              | 43            | 12           | 46          |
| Artillery Tractors                      | 4                  | 4                 | 0                | 1                | 0 | 0 | 0 | 0              | 0               | 0              | 12             | 41            | 12           | 46          |

"Strength Points" are SP/platoon

"Victory Points" is VP/Platoon (of listed SP)

## Appendices - united states Unit Data

|  <b>UNITED STATES</b><br><b>UNIT NAME</b> | Strength | Victory | Assault | Defense | Opt. Armor |    |    | Firing | Loading | Unload | Start | Start | End   | End  |
|---|----------|---------|---------|---------|------------|----|----|--------|---------|--------|-------|-------|-------|------|
|   | Points   | Points  | Value   | Value   | F          | S  | R  | Cost   | Cost    | Cost   | Month | Year  | Month | Year |
| Horses  | 6        | 6       | 0       | 1       | 0          | 0  | 0  | 0      | 50      | 50     | 12    | 41    | 5     | 42   |
| Boats   | 6        | 12      | 0       | 1       | 0          | 0  | 0  | 0      | 50      | 10     | 12    | 41    | 12    | 46   |
| Rafts   | 6        | 6       | 0       | 1       | 0          | 0  | 0  | 0      | 50      | 10     | 12    | 41    | 12    | 46   |
| Landing Craft Personnel   | 6        | 18      | 2       | 2       | 0          | 0  | 0  | 35     | 0       | 0      | 8     | 42    | 12    | 43   |
| Landing Craft Vehicle   | 6        | 24      | 2       | 4       | 0          | 0  | 0  | 35     | 0       | 0      | 8     | 42    | 12    | 43   |
| Landing Craft Vehicle Personnel   | 6        | 30      | 1       | 8       | 8          | 6  | 6  | 35     | 0       | 0      | 6     | 43    | 12    | 46   |
| Landing Craft Mechanized  | 6        | 30      | 2       | 12      | 12         | 9  | 9  | 35     | 0       | 0      | 8     | 42    | 12    | 46   |
| Landing Craft Tank  | 6        | 36      | 6       | 16      | 16         | 12 | 12 | 33     | 0       | 0      | 1     | 43    | 12    | 46   |
| M2 60mm Mortar Section  | 2        | 4       | 0       | 2       | 0          | 0  | 0  | 40     | 40      | 25     | 12    | 41    | 12    | 46   |
| M2 60mm Mortar Section  | 3        | 6       | 0       | 3       | 0          | 0  | 0  | 40     | 40      | 25     | 6     | 42    | 12    | 46   |
| Stokes 3-inch Mortars   | 2        | 4       | 0       | 3       | 0          | 0  | 0  | 40     | 50      | 50     | 12    | 41    | 5     | 42   |
| M1 81mm Mortar Section  | 2        | 6       | 0       | 3       | 0          | 0  | 0  | 40     | 50      | 50     | 12    | 41    | 5     | 42   |
| M1 81mm Mortars   | 4        | 12      | 0       | 3       | 0          | 0  | 0  | 40     | 50      | 50     | 12    | 41    | 12    | 46   |
| M1 81mm Mortars   | 6        | 18      | 0       | 4       | 0          | 0  | 0  | 40     | 50      | 50     | 6     | 42    | 12    | 46   |
| M2 4.2-inch Mortars   | 4        | 16      | 0       | 4       | 0          | 0  | 0  | 50     | 50      | 50     | 8     | 43    | 12    | 46   |
| T25 155mm Mortars   | 4        | 16      | 0       | 4       | 0          | 0  | 0  | 100    | 100     | 100    | 7     | 44    | 12    | 46   |
| M3A1 37mm Anti-Tank Guns  | 2        | 4       | 0       | 2       | 0          | 0  | 0  | 40     | 50      | 25     | 12    | 41    | 12    | 46   |
| M3A1 37mm Anti-Tank Guns  | 3        | 6       | 0       | 3       | 0          | 0  | 0  | 40     | 50      | 25     | 6     | 42    | 12    | 46   |
| M3A1 37mm Anti-Tank Guns  | 4        | 8       | 0       | 4       | 0          | 0  | 0  | 40     | 50      | 25     | 12    | 41    | 12    | 46   |
| M1 57mm Anti-Tank Guns  | 2        | 6       | 0       | 2       | 0          | 0  | 0  | 40     | 50      | 25     | 1     | 44    | 12    | 46   |
| M1 57mm Anti-Tank Guns  | 3        | 9       | 0       | 3       | 0          | 0  | 0  | 40     | 50      | 25     | 5     | 44    | 12    | 46   |
| M1 57mm Anti-Tank Guns  | 4        | 12      | 0       | 4       | 0          | 0  | 0  | 40     | 50      | 25     | 5     | 44    | 12    | 46   |
| M5 3-inch Anti-Tank Guns  | 4        | 16      | 0       | 5       | 0          | 0  | 0  | 40     | 50      | 50     | 11    | 45    | 12    | 46   |
| T32 37mm Marpack Guns   | 2        | 4       | 0       | 3       | 0          | 0  | 0  | 40     | 40      | 25     | 7     | 44    | 12    | 46   |
| M18 57mm Recoilless Rifles  | 2        | 6       | 0       | 3       | 0          | 0  | 0  | 40     | 50      | 50     | 6     | 45    | 12    | 46   |
| M20 75mm Recoilless Rifles  | 2        | 8       | 0       | 3       | 0          | 0  | 0  | 40     | 50      | 50     | 6     | 45    | 12    | 46   |
| M1A1 75mm Pack Howitzers  | 4        | 16      | 0       | 3       | 0          | 0  | 0  | 40     | 50      | 50     | 12    | 41    | 12    | 46   |

"Strength Points" are SP/platoon

"Victory Points" is VP/Platoon (of listed SP)

| UNITED STATES<br>UNIT NAME         | Strength | Victory | Assault | Defense | Opt. Armor |   |   | Firing | Loading | Unload | Start | Start | End   | End  |
|------------------------------------|----------|---------|---------|---------|------------|---|---|--------|---------|--------|-------|-------|-------|------|
|                                    | Points   | Points  | Value   | Value   | F          | S | R | Cost   | Cost    | Cost   | Month | Year  | Month | Year |
| M1A1 75mm Pack Howitzers           | 6        | 24      | 0       | 3       | 0          | 0 | 0 | 40     | 50      | 50     | 12    | 41    | 12    | 43   |
| M1897A2 75mm Field Guns            | 4        | 16      | 0       | 4       | 0          | 0 | 0 | 40     | 50      | 50     | 12    | 41    | 5     | 42   |
| M1897A2 75mm Field Guns            | 2        | 8       | 0       | 4       | 0          | 0 | 0 | 40     | 50      | 50     | 8     | 42    | 10    | 42   |
| M2A1 105mm Howitzers               | 4        | 20      | 0       | 4       | 0          | 0 | 0 | 40     | 50      | 50     | 6     | 42    | 12    | 46   |
| M3 105mm Howitzers                 | 6        | 30      | 0       | 4       | 0          | 0 | 0 | 40     | 50      | 50     | 1     | 44    | 10    | 45   |
| M1918 155mm Howitzers              | 4        | 20      | 0       | 2       | 0          | 0 | 0 | 50     | 50      | 50     | 12    | 41    | 12    | 46   |
| M1 155mm Howitzers                 | 4        | 20      | 0       | 2       | 0          | 0 | 0 | 50     | 50      | 50     | 1     | 44    | 12    | 46   |
| M1918M1 155mm Guns                 | 4        | 24      | 0       | 2       | 0          | 0 | 0 | 100    | 100     | 100    | 12    | 41    | 12    | 44   |
| M1A1 155mm Guns                    | 4        | 24      | 0       | 2       | 0          | 0 | 0 | 100    | 100     | 100    | 5     | 43    | 12    | 46   |
| M1 8-inch Howitzers                | 4        | 24      | 0       | 2       | 0          | 0 | 0 | 100    | 100     | 100    | 9     | 44    | 12    | 46   |
| M51 Multiple .50-cal Machineguns   | 4        | 12      | 0       | 3       | 0          | 0 | 0 | 33     | 50      | 50     | 9     | 42    | 12    | 46   |
| M1A2 37mm Anti-Aircraft Guns       | 4        | 12      | 0       | 4       | 0          | 0 | 0 | 33     | 50      | 50     | 12    | 41    | 12    | 46   |
| M1 40mm Anti-Aircraft Guns         | 4        | 12      | 0       | 4       | 0          | 0 | 0 | 33     | 50      | 50     | 11    | 43    | 12    | 46   |
| M3 3-inch Anti-Aircraft Guns       | 4        | 16      | 0       | 3       | 0          | 0 | 0 | 50     | 100     | 100    | 12    | 41    | 12    | 42   |
| M1A1 90mm Anti-Aircraft Guns       | 4        | 20      | 0       | 3       | 0          | 0 | 0 | 50     | 100     | 100    | 8     | 42    | 12    | 46   |
| M2 90mm Anti-Aircraft Guns         | 4        | 20      | 0       | 3       | 0          | 0 | 0 | 35     | 50      | 50     | 6     | 44    | 12    | 46   |
| 5-inch Naval Guns                  | 3        | -       | 0       | 0       | 0          | 0 | 0 | 33     | 0       | 0      | 12    | 41    | 12    | 46   |
| 6-inch Naval Guns                  | 6        | -       | 0       | 0       | 0          | 0 | 0 | 50     | 0       | 0      | 12    | 41    | 12    | 46   |
| 8-inch Naval Guns                  | 4        | -       | 0       | 0       | 0          | 0 | 0 | 50     | 0       | 0      | 12    | 41    | 12    | 46   |
| 12-inch Naval Guns                 | 4        | -       | 0       | 0       | 0          | 0 | 0 | 100    | 0       | 0      | 12    | 41    | 12    | 46   |
| 14-inch Naval Guns                 | 6        | -       | 0       | 0       | 0          | 0 | 0 | 100    | 0       | 0      | 12    | 41    | 12    | 46   |
| 16-inch Naval Guns                 | 4        | -       | 0       | 0       | 0          | 0 | 0 | 100    | 0       | 0      | 12    | 41    | 12    | 46   |
| Rifle Platoon                      | 6        | 18      | 5       | 7       | 0          | 0 | 0 | 35     | 50      | 25     | 12    | 41    | 10    | 43   |
| Rifle Platoon                      | 6        | 18      | 5       | 7       | 0          | 0 | 0 | 35     | 50      | 25     | 11    | 43    | 12    | 46   |
| Cavalry Platoon                    | 6        | 12      | 3       | 4       | 0          | 0 | 0 | 35     | 50      | 50     | 12    | 41    | 5     | 42   |
| PA (Philippine Army) Rifle Platoon | 6        | 12      | 4       | 6       | 0          | 0 | 0 | 40     | 50      | 25     | 12    | 41    | 5     | 42   |
| Native Irregular Platoon           | 6        | 12      | 2       | 6       | 0          | 0 | 0 | 50     | 50      | 25     | 12    | 41    | 8     | 45   |

"Strength Points" are SP/platoon

"Victory Points" is VP/Platoon (of listed SP)

## Appendices - united states Unit Data

| UNITED STATES<br>UNIT NAME | Strength<br>Points | Victory<br>Points | Assault<br>Value | Defense<br>Value | F | S | R | Firing<br>Cost | Loading<br>Cost | Unload<br>Cost | Start<br>Month | Start<br>Year | End<br>Month | End<br>Year |
|----------------------------|--------------------|-------------------|------------------|------------------|---|---|---|----------------|-----------------|----------------|----------------|---------------|--------------|-------------|
| Parachute Infantry Platoon | 6                  | 24                | 6                | 7                | 0 | 0 | 0 | 35             | 50              | 25             | 9              | 43            | 10           | 43          |
| Parachute Infantry Platoon | 6                  | 24                | 6                | 7                | 0 | 0 | 0 | 35             | 50              | 25             | 11             | 43            | 12           | 46          |
| Ranger Infantry Platoon    | 6                  | 18                | 6                | 6                | 0 | 0 | 0 | 35             | 50              | 25             | 9              | 44            | 12           | 46          |
| Armored Infantry Platoon   | 6                  | 24                | 6                | 7                | 0 | 0 | 0 | 35             | 50              | 25             | 11             | 45            | 12           | 46          |
| Marine Platoon             | 6                  | 18                | 5                | 8                | 0 | 0 | 0 | 35             | 50              | 25             | 12             | 41            | 12           | 42          |
| Marine Platoon             | 6                  | 24                | 7                | 8                | 0 | 0 | 0 | 35             | 50              | 25             | 1              | 43            | 10           | 43          |
| Marine Platoon             | 6                  | 24                | 7                | 8                | 0 | 0 | 0 | 35             | 50              | 25             | 11             | 43            | 3            | 44          |
| Marine Platoon             | 6                  | 30                | 8                | 9                | 0 | 0 | 0 | 35             | 50              | 25             | 4              | 44            | 12           | 46          |
| Marine Parachute Platoon   | 6                  | 18                | 8                | 7                | 0 | 0 | 0 | 35             | 50              | 25             | 8              | 42            | 2            | 44          |
| Marine Raider Platoon      | 6                  | 18                | 6                | 6                | 0 | 0 | 0 | 35             | 50              | 25             | 8              | 42            | 1            | 44          |
| Engineer Platoon           | 6                  | 24                | 7                | 7                | 0 | 0 | 0 | 35             | 50              | 50             | 12             | 41            | 12           | 46          |
| Airborne Engineer Platoon  | 6                  | 24                | 7                | 7                | 0 | 0 | 0 | 35             | 50              | 50             | 5              | 44            | 12           | 46          |
| Light Machinegun Section   | 2                  | 6                 | 1                | 4                | 0 | 0 | 0 | 35             | 50              | 25             | 12             | 41            | 12           | 46          |
| Light Machinegun Section   | 3                  | 9                 | 2                | 7                | 0 | 0 | 0 | 35             | 50              | 25             | 4              | 43            | 12           | 46          |
| Light Machinegun Platoon   | 6                  | 18                | 2                | 7                | 0 | 0 | 0 | 35             | 50              | 25             | 4              | 43            | 4            | 44          |
| Heavy Machinegun Platoon   | 4                  | 12                | 2                | 6                | 0 | 0 | 0 | 35             | 50              | 50             | 12             | 41            | 12           | 46          |
| Heavy Machinegun Platoon   | 6                  | 18                | 2                | 7                | 0 | 0 | 0 | 35             | 50              | 50             | 5              | 44            | 12           | 46          |
| .50-cal Machinegun Platoon | 3                  | 12                | 0                | 5                | 0 | 0 | 0 | 35             | 50              | 50             | 12             | 41            | 12           | 46          |
| Battalion HQ (foot)        | 2                  | 18                | 0                | 2                | 0 | 0 | 0 | 35             | 50              | 50             | 12             | 41            | 12           | 46          |
| Battalion HQ (mot.)        | 2                  | 24                | 0                | 2                | 0 | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 12           | 46          |
| Regimental HQ (foot)       | 3                  | 21                | 0                | 3                | 0 | 0 | 0 | 35             | 50              | 50             | 12             | 41            | 12           | 46          |
| Regimental HQ (mot.)       | 3                  | 27                | 0                | 3                | 0 | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 12           | 46          |
| Brigade HQ                 | 3                  | 30                | 0                | 3                | 0 | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 12           | 46          |
| Divisional HQ              | 4                  | 40                | 0                | 4                | 0 | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 12           | 46          |
| Corps HQ                   | 5                  | 45                | 0                | 5                | 0 | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 12           | 46          |
| Army HQ                    | 6                  | 54                | 0                | 6                | 0 | 0 | 0 | 35             | 0               | 0              | 12             | 41            | 12           | 46          |

"Strength Points" are SP/platoon

"Victory Points" is VP/Platoon (of listed SP)

| UNITED STATES<br>UNIT NAME | Strength | Victory | Assault | Defense | Opt. Armor |   |   | Firing | Loading | Unload | Start | Start | End   | End  |
|----------------------------|----------|---------|---------|---------|------------|---|---|--------|---------|--------|-------|-------|-------|------|
|                            | Points   | Points  | Value   | Value   | F          | S | R | Cost   | Cost    | Cost   | Month | Year  | Month | Year |
| Commander 1                | 1*       | 4       | 0       | 1       | 0          | 0 | 0 | 0      | 10      | 10     | 12    | 41    | 12    | 46   |
| Commander 2                | 2*       | 8       | 0       | 1       | 0          | 0 | 0 | 0      | 10      | 10     | 12    | 41    | 12    | 46   |
| Commander 3                | 3*       | 12      | 0       | 1       | 0          | 0 | 0 | 0      | 10      | 10     | 12    | 41    | 12    | 46   |
| Commander 4                | 4*       | 16      | 0       | 1       | 0          | 0 | 0 | 0      | 10      | 10     | 12    | 41    | 12    | 46   |
| Commander 5                | 5*       | 20      | 0       | 1       | 0          | 0 | 0 | 0      | 10      | 10     | 12    | 41    | 12    | 46   |
| Commander 1 (mot.)         | 1*       | 6       | 0       | 1       | 0          | 0 | 0 | 0      | 0       | 0      | 12    | 41    | 12    | 46   |
| Commander 2 (mot.)         | 2*       | 12      | 0       | 1       | 0          | 0 | 0 | 0      | 0       | 0      | 12    | 41    | 12    | 46   |
| Commander 3 (mot.)         | 3*       | 18      | 0       | 1       | 0          | 0 | 0 | 0      | 0       | 0      | 12    | 41    | 12    | 46   |
| Commander 4 (mot.)         | 4*       | 24      | 0       | 1       | 0          | 0 | 0 | 0      | 0       | 0      | 12    | 41    | 12    | 46   |
| Commander 5 (mot.)         | 5*       | 30      | 0       | 1       | 0          | 0 | 0 | 0      | 0       | 0      | 12    | 41    | 12    | 46   |

"Strength Points" are SP/platoon

"Victory Points" is VP/Platoon (of listed SP)

TalonSoft grants the buyer of this software package the right to use one copy of the enclosed software program. You may not use it across a network, unless used in conjunction with another legitimate copy, rent or lease it, disassemble, decompile, reverse engineer, or modify the software in any way. All editors may be used to create scenarios that may be freely distributed, providing that no monetary profit will be required or gained, and scenarios are distributed in a non-commercial manner. TalonSoft has the ultimate rights to all scenarios created from this software. You may not copy or distribute copies of the enclosed written material.

The enclosed software program, libraries, graphics, and all written material are the sole property of TalonSoft, Inc. and its suppliers and are protected under the copyright laws of the United States of America and all International Treaties.

This software product is sold *AS IS* and TalonSoft, its suppliers, dealers or distributors make no warranty with respect to the performance, quality, merchantability, fitness for any purpose of the software. The original purchaser must complete and return the enclosed registration card within 30 days of purchase. The enclosed media will be replaced free of charge for the first 90 days after purchase, providing you send the defective media along with a note describing the problem.

After 90 days, the media will be replaced for \$15 U.S.

Send to: TalonSoft, P.O. Box 43730, White Marsh, MD 21236

| UNITED STATES<br>UNIT NAME    | RANGE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 100 | 110 |
|-------------------------------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|
|                               | 1     | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |     |     |
| M2A4 light Tanks              | 7     | 5  | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                               | 9     | 3  | 2  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| M3 Light Tanks                | 8     | 6  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                               | 10    | 4  | 3  | 2  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| M3A1 Light Tanks              | 8     | 6  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                               | 10    | 4  | 3  | 2  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| M3A1 Flamethrower Light Tanks | 1     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                               | 3     | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| M5A1 Light Tanks              | 9     | 7  | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                               | 10    | 4  | 3  | 2  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| M24 Light Tanks               | 18    | 17 | 16 | 14 | 12 | 10 | 8  | 6  |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                               | 12    | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 8  | 7  | 6  |    |    |    |    |    |    |     |     |
| M3 Medium Tanks               | 17    | 16 | 14 | 12 | 10 | 9  | 7  | 5  |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                               | 12    | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 8  | 7  | 6  |    |    |    |    |    |    |     |     |
| M4 Medium Tanks               | 18    | 17 | 16 | 14 | 12 | 10 | 8  | 6  |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                               | 12    | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 8  | 7  | 6  |    |    |    |    |    |    |     |     |
| M4A2 Medium Tanks             | 18    | 17 | 16 | 14 | 12 | 10 | 8  | 6  |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                               | 12    | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 8  | 7  | 6  |    |    |    |    |    |    |     |     |
| M4(76)W Medium Tanks          | 28    | 25 | 22 | 20 | 18 | 16 | 14 | 12 | 10 | 7  |    |    |    |    |    |    |    |    |    |     |     |
|                               | 11    | 11 | 10 | 10 | 9  | 8  | 7  | 7  | 6  | 6  | 6  | 5  | 5  | 5  | 5  |    |    |    |    |     |     |
| M4(105) Medium Tanks          | 16    | 12 | 8  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                               | 15    | 15 | 14 | 14 | 13 | 13 | 12 | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 7  | 7  | 6  |     |     |
| POA-CWS-H1 Flamethrower Tanks | 1     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                               | 3     | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| POA-CWS-H5 Flamethrower Tanks | 12    | 8  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                               | 15    | 15 | 14 | 14 | 13 | 12 | 11 | 10 | 9  | 8  |    |    |    |    |    |    |    |    |    |     |     |
| M26 Heavy Tanks               | 32    | 31 | 30 | 28 | 26 | 24 | 22 | 20 | 18 | 16 | 14 | 12 |    |    |    |    |    |    |    |     |     |
|                               | 14    | 14 | 13 | 13 | 12 | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 7  | 7  |    |    |    |     |     |
| M45 Heavy Tanks               | 16    | 12 | 8  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                               | 15    | 15 | 14 | 14 | 13 | 13 | 12 | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 7  | 7  | 6  |     |     |

Upper line is nominal Attack Strength vs. Hard (armored) Target  
Lower line is nominal Attack Strength vs. Soft (unarmed) Target

**Note:** Only *armed* units capable of ranged fire are listed in these Weapon Data charts; i.e., unarmed transport and leaders are not listed

| UNIT NAME                       | RANGE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
|---------------------------------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|---|--|
|                                 | 1     | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 |   |  |
| T4 Mine Exploder Tanks          | 18    | 17 | 16 | 14 | 12 | 10 | 8  | 6  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
|                                 | 12    | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 7  | 6  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
| M10 GMC 76mm Tank Destroyers    | 31    | 28 | 24 | 22 | 20 | 18 | 16 | 14 | 12 | 9  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
|                                 | 9     | 9  | 8  | 8  | 7  | 7  | 6  | 6  | 5  | 5  | 5  | 4  | 4  | 4  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
| M18 GMC 76mm Tank Destroyers    | 31    | 28 | 24 | 22 | 20 | 18 | 16 | 14 | 12 | 9  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
|                                 | 9     | 9  | 8  | 8  | 7  | 7  | 6  | 6  | 5  | 5  | 5  | 4  | 4  | 4  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
| M36 GMC 90mm Tank Destroyers    | 34    | 32 | 31 | 30 | 28 | 26 | 24 | 22 | 20 | 18 | 16 | 14 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
|                                 | 10    | 10 | 10 | 9  | 9  | 9  | 8  | 8  | 7  | 7  | 6  | 6  | 5  | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
| M3 Halftracks                   | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
|                                 | 3     | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
| M4 81mm Mortar Halftracks       | 2     | 2  | 2  | 2  | 2  | 2  | 1  | 1  | 1  | 1  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
|                                 | 16    | 16 | 15 | 15 | 14 | 14 | 13 | 12 | 11 | 9  | 7  | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
| M3 GMC 75mm Gun Halftracks      | 12    | 10 | 8  | 6  | 4  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |     |   |  |
|                                 | 12    | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 10 | 10 | 10 | 10 | 9  | 9  | 9  | 9  | 8  | 8  | 8  | 8  | 8  | 8  | 6  |    |    |    |    |     |     |   |  |
| M15A1 MGMC 37mm AA Halftracks   | 6     | 4  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
|                                 | 12    | 4  | 3  | 2  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
| M16 MGMC Quad .50-cal AA Hlftrk | 3     | 2  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
|                                 | 24    | 20 | 15 | 10 | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
| M19 GMC Twin 40mm AA Tanks      | 7     | 6  | 5  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
|                                 | 22    | 21 | 20 | 19 | 18 | 16 | 14 | 12 | 10 | 8  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
| M3A1 Scout Car Section          | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
|                                 | 5     | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
| M8 Armored Car Section          | 9     | 7  | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
|                                 | 10    | 5  | 3  | 2  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |  |
| M8 HMC S-P 75mm How. Section    | 8     | 5  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1 |  |
|                                 | 12    | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 10 | 10 | 10 | 10 | 9  | 9  | 9  | 9  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 6  |    |    |    |     |     |   |  |
| M8 HMC S-P 75mm Howitzers       | 8     | 5  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1 |  |
|                                 | 12    | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 10 | 10 | 10 | 10 | 9  | 9  | 9  | 9  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 6  |    |    |    |     |     |   |  |
| M7 HMC S-P 105mm Howitzers      | 10    | 8  | 6  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1 |  |
|                                 | 18    | 18 | 18 | 18 | 18 | 17 | 17 | 17 | 16 | 16 | 16 | 16 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 14 | 11 | 8  |    |    |    |    |    |     |     |   |  |

| UNITED STATES<br>UNIT NAME         | RANGE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|------------------------------------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|
|                                    | 1     | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 |
| M37 HMC S-P 105mm Howitzers        | 10    | 8  | 6  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |     |
|                                    | 18    | 18 | 18 | 18 | 18 | 17 | 17 | 17 | 17 | 16 | 16 | 16 | 16 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 14 | 11 | 9  |    |    |    |    |     |     |
| M41 HMC S-P 155mm Howitzers        | 14    | 12 | 10 | 7  | 3  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   |     |
|                                    | 24    | 24 | 24 | 24 | 24 | 23 | 23 | 23 | 23 | 22 | 22 | 22 | 21 | 21 | 21 | 21 | 20 | 20 | 20 | 18 | 15 | 13 | 10 |    |    |    |    |     |     |
| M40 GMC S-P 155mm Guns             | 17    | 14 | 11 | 8  | 5  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   |     |
|                                    | 24    | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 22 | 22 | 22 | 22 | 21 | 20 | 17 | 16 | 15 | 14 | 12 |     |     |
| M43 HMC S-P 8-inch Howitzers       | 20    | 16 | 12 | 9  | 6  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   |     |
|                                    | 30    | 30 | 30 | 30 | 29 | 29 | 29 | 29 | 28 | 28 | 28 | 28 | 27 | 27 | 27 | 27 | 26 | 26 | 26 | 26 | 23 | 21 | 18 | 16 |    |    |    |     |     |
| T93 GMC S-P 8-inch Guns            | 24    | 21 | 18 | 15 | 12 | 8  | 4  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   |     |
|                                    | 30    | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 28 | 28 | 28 | 28 | 27 | 26 | 24 | 23 | 22 | 20 | 19 | 18  | 16  |
| T92 HMC S-P 240mm Howitzers        | 22    | 19 | 16 | 13 | 9  | 6  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   |     |
|                                    | 38    | 38 | 38 | 38 | 38 | 37 | 37 | 37 | 37 | 37 | 36 | 36 | 36 | 36 | 35 | 35 | 35 | 35 | 34 | 32 | 29 | 27 | 25 | 22 | 20 | 17 |    |     |     |
| Jeep Scout Section                 | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                    | 6     | 4  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| LVT2 Amphib. Personnel Carriers    | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                    | 4     | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| LVT(A)2 Amphib. Personnel Carriers | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                    | 4     | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| LVT4 Amphibious Personnel Carriers | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                    | 4     | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| LVT(A)1 Amphibious Tanks           | 9     | 7  | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                    | 10    | 4  | 3  | 2  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| LVT(A)4 Amphibious Tanks           | 8     | 5  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |     |
|                                    | 12    | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 10 | 10 | 10 | 10 | 9  | 9  | 9  | 9  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 6  |    |    |    |     |     |
| Landing Craft Personnel            | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                    | 4     | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| Landing Craft Vehicle Personnel    | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                    | 4     | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| Landing Craft Mechanized           | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                    | 4     | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |

| UNITED STATES<br>UNIT NAME | RANGE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
|----------------------------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|---|---|--|--|--|--|--|
|                            | 1     | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 |   |   |  |  |  |  |  |
| Landing Craft Tank         | 4     | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
|                            | 9     | 8  | 6  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
| M2 60mm Mortar Section     | 1     | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |     |   |   |  |  |  |  |  |
|                            | 11    | 11 | 10 | 9  | 6  | 5  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
| Stokes 3-inch Mortars      | 0     | 2  | 2  | 1  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
|                            | 0     | 11 | 10 | 8  | 6  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
| M1 81mm Mortar Section     | 2     | 2  | 2  | 2  | 2  | 2  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |     |   |   |  |  |  |  |  |
|                            | 16    | 16 | 15 | 15 | 14 | 14 | 13 | 12 | 11 | 9  | 7  | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
| M1 81mm Mortars            | 2     | 2  | 2  | 2  | 2  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   |   |   |  |  |  |  |  |
|                            | 16    | 16 | 15 | 15 | 14 | 14 | 13 | 12 | 11 | 9  | 7  | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
| M2 4.2-in. Mortars         | 0     | 0  | 3  | 3  | 3  | 3  | 3  | 3  | 2  | 2  | 2  | 2  | 2  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   |   |   |  |  |  |  |  |
|                            | 0     | 0  | 17 | 16 | 15 | 15 | 14 | 13 | 13 | 12 | 11 | 11 | 10 | 9  | 9  | 8  |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
| T25 155mm Mortars          | 0     | 3  | 3  | 3  | 3  | 2  | 2  | 2  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
|                            | 0     | 24 | 23 | 22 | 20 | 18 | 16 | 14 | 12 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
| M3A1 37mm Anti-Tank Guns   | 9     | 7  | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
|                            | 10    | 5  | 3  | 2  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
| M1 57mm Anti-Tank Guns     | 19    | 17 | 14 | 12 | 10 | 8  | 6  | 4  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
|                            | 2     | 2  | 1  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
| M5 3-in. Anti-Tank Guns    | 25    | 22 | 20 | 18 | 16 | 14 | 12 | 10 | 7  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
|                            | 10    | 10 | 9  | 8  | 7  | 7  | 6  | 6  | 6  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5  | 5   | 5   | 5 |   |  |  |  |  |  |
| T32 37mm Manpack Guns      | 2     | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
|                            | 10    | 5  | 3  | 2  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
| M18 57mm Recoilless Rifles | 9     | 6  | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
|                            | 7     | 7  | 6  | 6  | 5  | 4  | 3  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
| M20 75mm Recoilless Rifles | 10    | 8  | 6  | 4  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
|                            | 12    | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 7  | 6  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |   |   |  |  |  |  |  |
| M1A1 75mm Pack Howitzers   | 8     | 5  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1 | 1 |  |  |  |  |  |
|                            | 12    | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 10 | 10 | 10 | 10 | 10 | 9  | 9  | 9  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 8  | 6  |    |    |     |     |   |   |  |  |  |  |  |
| M1897A2 75mm Field Guns    | 12    | 10 | 8  | 6  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   | 1   | 1 | 1 |  |  |  |  |  |
|                            | 12    | 12 | 12 | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 11 | 11 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 9  | 8  | 6  |    |     |     |   |   |  |  |  |  |  |

Upper line is nominal Attack Strength vs. Hard (armored) Target  
Lower line is nominal Attack Strength vs. Soft (unarmored) Target

**Note:** Only *armed* units capable of ranged fire are listed in these Weapon Data charts; i.e., unarmed transport and leaders are not listed

Appendices - united states Weapon Data

|  <b>UNITED STATES</b><br><b>UNIT NAME</b> | <b>RANGE</b> |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|--|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
|  | 1            | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| M2A1 105mm Howitzers   | 10           | 8  | 6  | 3  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |
|  | 18           | 18 | 18 | 18 | 18 | 17 | 17 | 17 | 17 | 16 | 16 | 16 | 16 | 15 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 14 | 11 | 9  |    |    |    |     |
| M3 105mm Howitzers   | 10           | 8  | 5  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1   |
|  | 18           | 18 | 18 | 17 | 17 | 17 | 16 | 16 | 16 | 15 | 15 | 15 | 15 | 14 | 14 | 13 | 13 | 12 | 12 | 11 | 11 |    |    |    |    |    |    |     |
| M1918 155mm Howitzers  | 14           | 12 | 10 | 7  | 3  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   |
|  | 24           | 24 | 24 | 24 | 23 | 23 | 23 | 22 | 22 | 22 | 21 | 21 | 21 | 20 | 20 | 20 | 19 | 19 | 19 | 19 | 15 | 12 |    |    |    |    |    |     |
| M1 155mm Howitzers   | 14           | 12 | 10 | 7  | 3  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   |
|  | 24           | 24 | 24 | 24 | 24 | 23 | 23 | 23 | 23 | 22 | 22 | 22 | 22 | 21 | 21 | 21 | 21 | 21 | 20 | 20 | 18 | 15 | 13 | 10 |    |    |    |     |
| M1918M1 155mm Guns   | 17           | 14 | 11 | 8  | 5  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   |
|  | 24           | 24 | 24 | 24 | 23 | 23 | 23 | 23 | 22 | 22 | 22 | 22 | 21 | 21 | 21 | 21 | 20 | 20 | 20 | 20 | 17 | 15 | 13 | 11 |    |    |    |     |
| M1A1 155mm Guns  | 17           | 14 | 11 | 8  | 5  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   |
|  | 24           | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 22 | 22 | 22 | 22 | 22 | 21 | 20 | 17 | 16 | 15 | 14 | 12 |     |
| M1 8-in. Howitzers   | 20           | 16 | 12 | 9  | 6  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   |
|  | 30           | 30 | 30 | 30 | 29 | 29 | 29 | 29 | 28 | 28 | 28 | 28 | 27 | 27 | 27 | 27 | 26 | 26 | 26 | 26 | 23 | 21 | 18 | 16 |    |    |    |     |
| M51 Multiple .50-cal Machineguns   | 3            | 2  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|  | 24           | 20 | 15 | 10 | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| M1A2 37mm Anti-Aircraft Guns   | 6            | 4  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|  | 12           | 11 | 10 | 9  | 8  | 7  | 6  | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| M1 40mm Anti-Aircraft Guns   | 6            | 5  | 4  | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|  | 14           | 13 | 12 | 11 | 10 | 9  | 8  | 7  | 6  | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
| M1A1 90mm Anti-Aircraft Guns   | 34           | 32 | 31 | 30 | 28 | 26 | 24 | 22 | 20 | 18 | 16 | 14 | 12 | 11 | 10 | 9  | 7  | 7  | 7  | 6  | 6  | 6  |    |    |    |    |    |     |
|  | 14           | 14 | 13 | 13 | 12 | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 7  | 7  | 7  | 7  | 6  | 6  | 6  | 6  |    |    |    |    |    |     |
| M2 90mm Anti-Aircraft Guns   | 34           | 32 | 31 | 30 | 28 | 26 | 24 | 22 | 20 | 18 | 16 | 14 | 12 | 11 | 10 | 9  |    |    |    |    |    |    |    |    |    |    |    |     |
|  | 14           | 14 | 13 | 13 | 12 | 12 | 11 | 11 | 10 | 10 | 9  | 9  | 8  | 8  | 7  | 7  | 7  | 6  | 6  | 6  | 6  |    |    |    |    |    |    |     |
| 5-inch Naval Guns  | 10           | 10 | 9  | 9  | 8  | 8  | 7  | 7  | 6  | 6  | 5  | 5  | 4  | 4  | 3  | 3  | 2  | 2  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  |     |
|  | 24           | 24 | 24 | 24 | 24 | 24 | 24 | 23 | 23 | 23 | 23 | 23 | 23 | 22 | 22 | 22 | 22 | 22 | 20 | 18 | 16 | 13 |    |    |    |    |    |     |
| 6-inch Naval Guns  | 20           | 20 | 19 | 19 | 18 | 18 | 17 | 17 | 16 | 16 | 15 | 15 | 14 | 14 | 13 | 13 | 12 | 12 | 11 | 11 | 2  | 2  | 2  | 2  | 2  | 2  | 2  | 2   |
|  | 27           | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 27 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 25 | 25 | 24 | 23 | 21 | 20 | 18 | 16 | 14 |    |     |
| 8-inch Naval Guns  | 24           | 24 | 23 | 23 | 22 | 22 | 21 | 21 | 20 | 20 | 19 | 19 | 18 | 18 | 17 | 17 | 16 | 16 | 15 | 15 | 6  | 4  | 4  | 4  | 4  | 4  | 4  | 4   |
|  | 33           | 33 | 33 | 33 | 33 | 33 | 33 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 31 | 31 | 31 | 31 | 30 | 28 | 27 | 26 | 24 | 22 | 21 | 19 | 17 |     |

| UNITED STATES<br>UNIT NAME          | RANGE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|-------------------------------------|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|
|                                     | 1     | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 |
| 12-inch Naval Guns                  | 27    | 27 | 26 | 26 | 25 | 25 | 24 | 24 | 23 | 23 | 22 | 22 | 21 | 21 | 20 | 20 | 19 | 19 | 18 | 18 | 9  | 6  | 6  | 6  | 6  | 6  | 6  | 6   | 6   |
|                                     | 51    | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 51 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 49 | 47 | 46 | 45 | 44 | 43 | 41 | 39  | 37  |
| 14-inch Naval Guns                  | 30    | 30 | 29 | 29 | 28 | 28 | 27 | 27 | 26 | 26 | 25 | 25 | 24 | 24 | 23 | 23 | 22 | 22 | 21 | 21 | 12 | 8  | 8  | 8  | 8  | 8  | 8  | 8   | 8   |
|                                     | 62    | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 62 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 60 | 59 | 57 | 56 | 55 | 54 | 53 | 51 | 50  |     |
| 16-inch Naval Guns                  | 34    | 34 | 33 | 33 | 32 | 32 | 31 | 31 | 30 | 30 | 29 | 29 | 28 | 28 | 27 | 27 | 26 | 26 | 25 | 25 | 16 | 10 | 10 | 10 | 10 | 10 | 10 | 10  | 10  |
|                                     | 70    | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 69 | 68 | 68 | 67 | 66 | 65 | 63 | 62 | 61 | 59 | 58 | 56 |     |     |
| Rifle Platoon (early)               | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                     | 10    | 7  | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| Rifle Platoon (11/43+)              | 8     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                     | 10    | 7  | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| Cavalry Platoon                     | 1     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                     | 6     | 3  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| PA (Philippine Army) Rifle Platoon  | 1     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                     | 6     | 3  | 1  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| Native Irregular Platoon            | 1     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                     | 5     | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| Parachute Infantry Platoon (early)  | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                     | 10    | 7  | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| Parachute Infantry Platoon (11/43+) | 9     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                     | 10    | 7  | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| Ranger Infantry Platoon             | 8     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                     | 7     | 5  | 2  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| Armored Infantry Platoon            | 10    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                     | 12    | 9  | 6  | 3  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| Marine Platoon (1941-42)            | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                     | 9     | 6  | 5  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| Marine Platoon (1/43-10/43)         | 2     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                     | 13    | 10 | 6  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
| Marine Platoon (11/43-3/44)         | 6     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |
|                                     | 13    | 10 | 6  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |

Upper line is nominal Attack Strength vs. Hard (armored) Target  
Lower line is nominal Attack Strength vs. Soft (unarmored) Target

**Note:** Only *armed* units capable of ranged fire are listed in these Weapon Data charts; i.e., unarmed transport and leaders are not listed

| UNITED STATES<br>UNIT NAME | RANGE |    |   |   |   |   |   |   |   |
|----------------------------|-------|----|---|---|---|---|---|---|---|
|                            | 1     | 2  | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| PMarine Platoon (4/44+)    | 8     |    |   |   |   |   |   |   |   |
|                            | 15    | 13 | 7 |   |   |   |   |   |   |
| Marine Parachute Platoon   | 3     |    |   |   |   |   |   |   |   |
|                            | 4     | 2  |   |   |   |   |   |   |   |
| Marine Raider Platoon      | 2     |    |   |   |   |   |   |   |   |
|                            | 10    | 7  | 3 |   |   |   |   |   |   |
| Engineer Platoon           | 12    |    |   |   |   |   |   |   |   |
|                            | 8     | 5  | 2 |   |   |   |   |   |   |
| Airborne Engineer Platoon  | 12    |    |   |   |   |   |   |   |   |
|                            | 8     | 5  | 2 |   |   |   |   |   |   |
| Light Machinegun Section   | 2     |    |   |   |   |   |   |   |   |
|                            | 10    | 8  | 6 | 4 |   |   |   |   |   |
| Light Machinegun Platoon   | 2     |    |   |   |   |   |   |   |   |
|                            | 10    | 8  | 6 | 4 |   |   |   |   |   |
| Heavy Machinegun Platoon   | 2     |    |   |   |   |   |   |   |   |
|                            | 10    | 9  | 7 | 5 | 3 |   |   |   |   |
| .50-cal Machinegun Platoon | 3     | 1  |   |   |   |   |   |   |   |
|                            | 12    | 10 | 8 | 6 | 4 |   |   |   |   |

| UNITED STATES<br>UNIT NAME | RANGE |   |   |   |   |   |   |   |   |
|----------------------------|-------|---|---|---|---|---|---|---|---|
|                            | 1     | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Battalion HQ (foot)        | 2     |   |   |   |   |   |   |   |   |
|                            | 4     | 2 | 1 |   |   |   |   |   |   |
| Battalion HQ (mot.)        | 2     |   |   |   |   |   |   |   |   |
|                            | 4     | 2 | 1 |   |   |   |   |   |   |
| Regimental HQ (foot)       | 4     |   |   |   |   |   |   |   |   |
|                            | 6     | 3 | 1 |   |   |   |   |   |   |
| Regimental HQ (mot.)       | 4     |   |   |   |   |   |   |   |   |
|                            | 6     | 3 | 1 |   |   |   |   |   |   |
| Brigade HQ                 | 4     |   |   |   |   |   |   |   |   |
|                            | 6     | 3 | 1 |   |   |   |   |   |   |
| Divisional HQ              | 4     |   |   |   |   |   |   |   |   |
|                            | 8     | 4 | 2 |   |   |   |   |   |   |
| Corps HQ                   | 5     |   |   |   |   |   |   |   |   |
|                            | 10    | 5 | 2 |   |   |   |   |   |   |
| Army HQ                    | 6     |   |   |   |   |   |   |   |   |
|                            | 12    | 6 | 3 |   |   |   |   |   |   |



Uses Smacker Technology. Copyright © 1994-1997  
by RAD Game Tools, Inc."

SmackPlw.exe is Copyright © 1994-1997  
by RAD Game Tools, Inc.

## TalonSoft's *Rising Sun* Aircraft List

| Aircraft Name                   | Str.<br>Pts. | Hard<br>Attack | Soft<br>Attack | Def.<br>Value | Vict.<br>Pts. | Start<br>Date | End<br>Date |
|---------------------------------|--------------|----------------|----------------|---------------|---------------|---------------|-------------|
| <b>JAPAN</b>                    |              |                |                |               |               |               |             |
| Aichi D3A Dive Bomber           | 2            | 20             | 28             | 5             | 7             | 12/41         | 12/46       |
| A6M Reisen Ground Attack        | 2            | 14             | 18             | 6             | 6             | 12/41         | 8/45        |
| Ki-43 Hayabusa Fighter          | 2            | 10             | 12             | 5             | 5             | 12/41         | 12/46       |
| Ki-45 Toryu Ground Attack       | 2            | 22             | 30             | 6             | 7             | 12/41         | 12/46       |
| A6M5 Reisen Ground Attack       | 2            | 14             | 18             | 7             | 6             | 8/43          | 12/46       |
| Ki-84 Hayate Ground Attack      | 2            | 22             | 30             | 5             | 7             | 6/44          | 12/46       |
| N1K2-J Shiden Ground Attack     | 2            | 22             | 30             | 6             | 7             | 6/44          | 12/46       |
| <b>U.K./COMMONWEALTH</b>        |              |                |                |               |               |               |             |
| Spitfire Mk VB Fighter          | 2            | 14             | 18             | 6             | 6             | 12/41         | 8/45        |
| Hurricane Mk IIA Fighter        | 2            | 12             | 16             | 5             | 5             | 12/41         | 8/45        |
| Hurricane Mk IIB Fighter        | 2            | 10             | 12             | 5             | 5             | 12/41         | 8/45        |
| Hurricane Mk IIC Fighter        | 2            | 12             | 14             | 5             | 5             | 12/41         | 8/45        |
| Fulmar Fighter                  | 2            | 10             | 12             | 5             | 5             | 12/41         | 12/42       |
| SBD Dive Bomber                 | 2            | 18             | 24             | 5             | 6             | 12/41         | 1/44        |
| F4U Fighter                     | 2            | 9              | 12             | 8             | 5             | 2/43          | 8/45        |
| Seafire Mk III Fighter          | 2            | 14             | 18             | 5             | 6             | 2/43          | 8/45        |
| Mosquito Mk VI Fighter          | 2            | 26             | 36             | 9             | 7             | 5/43          | 8/45        |
| Beaufighter Mk VI Ground Attack | 2            | 22             | 30             | 10            | 8             | 5/43          | 8/45        |
| Firefly Mk I Fighter            | 2            | 12             | 16             | 7             | 6             | 12/43         | 8/45        |
| Beaufighter Mk X Ground Attack  | 2            | 28             | 36             | 10            | 8             | 5/44          | 8/45        |
| P-51 Ground Attack              | 2            | 18             | 20             | 7             | 6             | 6/44          | 8/45        |
| <b>UNITED STATES</b>            |              |                |                |               |               |               |             |
| F2A Fighter                     | 2            | 6              | 8              | 8             | 4             | 12/41         | 3/42        |
| SBD Dive Bomber                 | 2            | 18             | 24             | 5             | 6             | 12/41         | 1/44        |
| P-39 Ground Attack              | 2            | 18             | 22             | 6             | 6             | 12/41         | 7/44        |
| P-40E Ground Attack             | 2            | 20             | 26             | 6             | 6             | 12/41         | 1/45        |
| F4F Fighter                     | 2            | 8              | 10             | 8             | 5             | 12/41         | 12/46       |
| P-38F Fighter                   | 2            | 26             | 34             | 8             | 7             | 8/42          | 12/46       |
| F4U Fighter                     | 2            | 9              | 12             | 8             | 5             | 2/43          | 12/46       |
| P-47D Ground Attack             | 2            | 36             | 52             | 7             | 8             | 8/43          | 12/46       |
| SB2C Dive Bomber                | 2            | 22             | 30             | 5             | 7             | 9/43          | 12/46       |
| F6F-5 Fighter                   | 2            | 18             | 20             | 8             | 6             | 4/44          | 12/46       |
| P-51D Ground Attack             | 2            | 18             | 20             | 7             | 6             | 5/44          | 12/46       |

## Military Symbols of Rising Sun (grouped according to background-color)

### Infantry (orange)

-  Infantry
-  Marine Infantry
-  Parachute Infantry
-  Commando Infantry
-  Anti-tank Rifle Infantry
-  Irregular Infantry
-  Cavalry
-  Motorized Infantry
-  Armored Infantry

### Recon, etc. (lavender)

-  Scout Cars & Armored Cars
-  Recon Tanks
-  Unarmored Recon Vehicles

### Anti-Aircraft (blue)

-  Anti-aircraft Guns (towed)
-  Heavy Anti-aircraft Guns (towed)
-  Anti-aircraft Trucks
-  Anti-aircraft Halftracks

### Heavy Infantry (dark orange)

-  Infantry Heavy Weapons

### Flamethrower Units (red)

-  Engineers
-  Flamethrower Tanks

### Mortars (olive)

-  Mortars
-  Heavy Mortars
-  Mortar Halftracks

### Artillery (medium green)

-  Light/Medium Artillery
-  Heavy Artillery
-  Coastal/Dual-Purpose Guns
-  Naval Guns
-  Self-propelled Artillery
-  Heavy Self-propelled Artillery

### Tanks (purple)

-  Tanks
-  Heavy Tanks
-  Amphibious Tanks
-  Engineer Tanks
-  AA Tanks

### Infantry Artillery (pale green)

-  Infantry Guns
-  Infantry Gun Halftracks

### Rockets (pale olive)

-  Rocket Artillery

### Anti-Tank (brown)

-  Anti-tank Guns (towed)
-  Heavy Anti-tank Guns (towed)
-  Tank Destroyers (fully-tracked)
-  Heavy Tank Destroyers (fully-tracked)
-  Anti-tank Trucks

## Military Symbols of Rising Sun

(grouped according to background-color)

### Transport (white)

-  Trucks
-  Halftracks
-  Fully-tracked Arm'd Pers. Carriers
-  Wheeled Arm'd Pers. Carriers
-  Fully-tracked Prime Movers
-  Landing Craft
-  Transport LVT
-  Amphibious Trucks
-  Wagons
-  Horses\*
-  Bicycles\*
-  Boats\*
-  Rafts\*

### Headquarters (light grey)

-  Army HQ
-  Corps HQ
-  Division HQ
-  Brigade HQ
-  Regiment HQ
-  Battalion HQ

\* Not capable of moving *unless* carrying a passenger.

## The Nations of Rising Sun

| Nationality Symbol  | 3D Base   | Allied | Country               |
|---|---|--------|-----------------------|
|  |  |        | U.K. and Commonwealth |
|  |  |        | United States         |
| Nationality Symbol  | 3D Base   | Axis   | Country               |
|  |  |        | Japan                 |

## Rising Sun Bibliography

Alexander, Joseph H. Storm Landings: Epic Amphibious Battles in the Central Pacific, Maryland, Naval Institute Press. 1997

Allen, Louis. Singapore 1941-1942, Newark, University of Delaware Press. 1977

Allen, Louis. Burma: The Longest War 1941-45

Allen, Thomas B & Polmar, Norman. Code-Name Downfall: the Secret Plan to Invade Japan-and Why Truman Dropped The Bomb, New York, Simon & Schuster. 1995

Beaumont, Joan. Australia's War, 1939-45, Australia, Allen & Unwin. 1996

Belote, James & William. Typhoon of Steel: The Battle of Okinawa, New York, Harper & Row, Publishers. 1970

Beck, John Jacob. MacArthur and Wainright, Albuquerque. University of New Mexico Press. 1974

Callahan, Raymond. The Worst Disaster: The Fall of Singapore, Newark, University of Delaware Press. 1977

Campbell, Arthur. The Siege, A Story from Kohima, Ruskin House, London, 1956

Coggins, Jack. The Campaign for Guadalcanal, Garden City, NY. Doubleday & Company, Inc. 1972

Dexter, David. The New Guinea Offensives

Dunnigan, James F. & Nofi, Albert A. The Pacific War Encyclopedia, Vols 1 & 2, New York, Fact on File, Inc. 1998

Elliott, Major-General James Gordon. A Roll of honour: The Story of the Indian Army 1939-1945, London, Cassell. 1965

Ferguson, Ted. Desperate Siege: The Battle of Hong Kong, Ontario, Doubleday Canada Limited. 1980

Flanagan, Lt. Gen. E.M. Jr. USA (Ret.) Corregidor: The Rock Force Assault, 1945, California, Presidio Press. 1988

Frank, Richard B. Guadalcanal, New York, Random House. 1990

Gailey, Harry A. Bougainville 1943-1945, Kentucky, University Press of Kentucky. 1991

Gailey, Harry. The War in the Pacific: From Pearl harbor to Tokyo Bay, California, Presidio Press. 1997

Garfield, Brian. The Thousand-Mile War: World War II In Alaska and the Aleutians, New York, Doubleday & Co, Inc. 1969

Gerald Asnor. Crisis in the Pacific, New York, Penguin Books. 1995

Greenhous, Brereton. "C" Force to Hong Kong - A Canadian Catastrophe 1941-1945

Griess, Thomas. Atlas of the Second World War: Asia and the Pacific, New Jersey, Avery Publishing Group, Inc. 1985

Hammel, Eric. Guadalcanal: Starvation Island, New York, Crown Publishers, Inc. 1987

Horner, D.M. Crisis of Command: Australian Generalship and the Japanese Threat, 1941-1943, Connecticut, Australian National University Press. 1978

Hoyt, Edwin. Guadalcanal, New York, Stein and Day Publishers. 1981

Kennedy, Paul. Pacific Onslaught, New York. Ballantine Books Inc. 1972

Kent Graeme. Guadalcanal Island Ordeal, New York, Ballantine Books Inc. 1971

Kirby, Stanton, Woodburn. The War Against Japan, London, Her Majesty's Stationery Office. 1961

Lindsay, Oliver. The Lasting Honour - the Fall of Hong Kong 1941

Long, Gavin. The Six Year War: A Concise History of Australia in the 1939-45 War  
Lunt, James. A Hell of a Licking: The Retreat from Burma 1941-2, London, Collins. 1986  
Mayo, Lida. Bloody Buna, New York, Doubleday & Company, Inc. 1974  
Merling, Karal Ann & Wetenhall, John. Iwo Jima: Monuments, Memories, and the American Hero, Massachusetts, Harvard University Press. 1991  
Merrilat, Herbert Christian. Guadalcanal Remembered, New York. Dodd, Mead & Company. 1982  
Mueller, Joseph N. Guadalcanal 1942: The Marines Strike Back, London, Michelin House. 1992  
Newcomb, Richard F. Iwo Jima, New York, Holt, Reinhart And Winston. 1965  
Ogburn, Charlton Jr. The Marauders, New York, Harper & Row, Publishers. 1959  
Perrett, Bryan. Tank Tracks to Rangoon.  
Paull, Raymond. The Retreat from Kokoda.  
Pimlott, John. The Historical Atlas of WWII, New York, Henry Holt & Co., Inc. 1995  
Robertson, John. Australia at War 1939-1945, Melbourne, William Heinemann. 1981  
Ross, Bill D. Iwo Jima: Legacy of Valor, New York, Vanguard Press. 1985  
Ross, Bill D. Peleliu Tragic Triumph: The Untold Story of the Pacific War's Forgotten Battle, New York, Random House. 1991  
Rottman, Gordon and Mike Chappell. US Marine Corps 1941-45, London, Osprey. 1995  
Russ, Martin. Line of Departure: Tarawa, New York, Doubleday & Company, Inc. 1975  
Skates, John Ray. The Invasion of Japan: Alternative to the Bomb, South Carolina, University of South Carolina Press. 1994  
Smurthwaite, David. The Pacific War Atlas 1941-1945, New York, Facts On file, Inc. 1995  
Stacey, Col. CP Stacey. Six years of War—the Canadian Army in Canada, Britain, and the Pacific.  
Steinberg, Rafael. Island Fighting, Alexandria. Time Incorporated. 1978  
Swinson, Arthur. The Battle of Kohima, New York, Stein And Day. 1967  
Taaffe, Stephen R. MacArthur's Jungle War: The 1944 New Guinea Campaign, Kansas, University Press of Kansas. 1998  
Tolland, John. The Rising Sun: The Decline and Fall of the Japanese Empire 1936-1945, New York, Random House. 1970  
Tregaskis, Richard. Guadalcanal Diary, New York, Random House. 1943  
Tsuji, Colonel Masanobu. Singapore—the Japanese Version, New York, St. Martin's Press. 1960.  
Vader, John. New Guinea: the Tide is Stemmed, The Pan/Ballantines Illustrated History of WWII  
Various. United States Army Greenbook Series, US Army.  
Vincent, Carl. No Reason Why - The Canadian Hong Kong Tragedy, an Examination  
Westheimer, David. Death is Lighter than a Feather, University of North Texas Press.  
Wheeler, Richard. IWO New York, Lippincott & Crowell, Publishers. 1980  
Wilson, Dick. When Tigers Fight: The Story of the Sino-Japanese War, 1937-1945, New York, The Viking Press. 1935  
Wright, Derrick. A Hell of a Way to Die: Tarawa Atoll 20-23 November 1943, London. Windrow & Greene. 1996  
Young, Peter and Richard Natkiel. Atlas of the Second World War, New York, Berkley Publishing Corp. 197

# Index

2D Normal: 14, 18, 21  
 2D Zoom-out: 14, 18, 21  
 3D Normal: 14, 18, 21  
 3D Zoom-out: 14, 18, 20  
 3D Extreme Zoom-out: 14, 18, 20  
 AA: see Anti-Aircraft  
 AI (artificial intelligence): 9, 15, 87, 103  
 Action Point(s): 22, 24, 33, 38, 40, 41  
 Advantage: 9, 15  
 Air Attack: 11, 19, 25, 28, 44, 105  
 Anti-Aircraft Fire: 24, 45  
 Anti-Aircraft Unit: 14  
 Amphibious: 24, 36  
 Armor Facing Effects: 84  
 AP: see action points  
 Artillery Dialog: 11, 18, 42, 43  
 Assaults: 12, 19, 36, 46, 47, 48  
 Assault Value: 17, 23, 46, 47, 48  
 Attack Strength: 17, 26, 49, 79  
 Auto Save AP's for Firing: 19  
 Banzai: 76  
 Bases (unit): 13, 19  
 Beach: 57, 60  
 Bicycle Capable: 75  
 Blocked (as in the counter): 28, 49, 57  
 Blocked (as in LOS, SP's and wrecks): 39  
 Bridges: 24, 31, 71, 72, 73  
 (blowing or damaging): 11, 49  
 Bunkers: 57  
 Campaign (game): 5, 85  
 Campaign Commanders Screen: 86  
 Cavalry: 37, 47  
 Cave: 57, 78  
 Character: 86  
 City: 65  
 Clear Terrain: 59  
 Cliff: 71  
 Column Movement: 36  
 Leader (aka Commander): 23, 74, 75  
 Command Control: 83  
 Command Rating: 23  
 Command Radius: 74  
 Command Report: 28  
 Combat: 38  
 Combat Explanation: 50  
 Combat Results: 52  
 Complexity Rating: 7  
 Concealment: 25, 73  
 Counter Assault: 46  
 Damage Report: 51  
 DCG: see Dynamic Campaign Game  
 Defense Strength: 23, 46, 47, 50, 51  
 (see values listed for each unit in the Manual Appendix)  
 Demolition (Bridge & High Wall): 49  
 Density Modifier (Direct Fire): 51  
 Density Modifier (Indirect Fire): 43  
 Detail Levels (in Damage Report): 16, 51  
 Digging In: 11, 24, 28, 58  
 Direct Fire: 38, 40, 51  
 Displacement (by reinforcement): 34  
 Disrupted (disruption): 14, 24, 32, 46, 52  
 Disrupted Unit Movement: 32  
 Disruption Loss: 28, 53  
 Double time: 11, 19, 24, 36  
 Dynamic Campaign Game: 85  
 Editors: 92  
 Embankment: 70  
 Equipment Upgrades: 91  
 Escarpment: 70  
 Engineers: 14, 24, 47, 49  
 Echelon Movement: 36  
 Excess Density Value: 51  
 Exit Objectives: 81, 108  
 Experience Points: 90  
 Extreme Fog-of-War: 34, 83  
 Fatigue(d): 24, 36  
 Field: 60  
 Fill (Cluster or Rectangle): 95  
 Find Org: 13  
 Fire Cost: 17, 23, 29  
 Fire/Mode: 18, 29  
 First Side: 82, 102  
 Fixed (units or status): 14, 24, 28, 37  
 Fog-of-War (FOW): 9, 48  
 Ford: 72  
 Forest: 62  
 Fortification: 56  
 FOW: (see Fog-of-war)  
 Game Scale: 17  
 Game Turn: 28  
 Gliders: 35

Graphical Unit Icons: 16  
 Ground Conditions: 12, 104  
 Gully: 67  
 Gunflash: 55  
 Hard (attack values/factor): 50  
 Hard (target): 17, 40  
 Headquarters: 14, 28, 79  
 Hedge: 70  
 Hex Contours: 13  
 High Wall: 49, 69  
 Hot Keys: Back cover  
 Hot Spot: 72  
 HQ: (see Headquarters)  
 IF: (see Indirect Fire)  
 Improved Position (IP): 25, 56  
 Industrial: 66  
 Info Box: 22  
 Info Box Thermometer: 23  
 Indirect Fire by Map: 42, 83  
 Indirect Fire (IF): 14, 24, 42, 43  
 Internet TCP/IP (modem) Play: 109  
 IP: (see Improved Position)  
 Isolated: 28  
 Japanese Special Rules: 75  
 Jump Map: 19, 21  
 Jungle: 62, 63  
 Kunai: 60  
 LCG: see Linked Campaign Game  
 Leaders (leadership rating): 14, 23, 74, 75  
 Line-of-sight (LOS): 24, 39  
 Linked Campaign Game: 85  
 Loading (cost) (also see Loading Cost see values listed for each unit in the Manual Appendix)  
 Load/Unload: 18, 30, 33  
 Leader Vulnerability: 75  
 LOS: (see Line-of-Sight)  
 Low-on-Ammo or Low-on-Supply: 14, 24, 28, 78, 79  
 Map Editor: 93  
 Map Labels: 21  
 Map Views: 13, 20, 21  
 Marsh: 63  
 Medals: 88  
 Military Symbols: 16, 184  
 Mine-Clearing Unit (aka engineer): 14, 24, 49  
 Minefields: 49, 57  
 Minimum Movement: 31  
 Mission: 89, 103  
 Modem & Serial Play: 6, 109  
 Morale: 23, 52, 53  
 Morale Check: 52, 53  
 Motorized Leader exception: 75  
 Moving a Unit: 30  
 Move/Fire Mode: 29  
 Multi-player Mode: 109  
 Network IPX Play: 109  
 Night: 54, 55  
 Objective: 12, 81  
 Off-Board Artillery: 42, 106  
 On-Map Thermometer: 13, 23, 25, 52  
 OOB: see Order of Battle  
 Opportunity Fire: 11, 29, 41  
 Optional Rules: 9, 16, 83, 84  
 Orchard: 61  
 Order of Battle (Editor): 97  
 Organization: 13, 14, 19, 27  
 Organizational Movement: 36  
 Out of Supply: 14, 28, 78, 79  
 Overstacking, 34  
 Paddy, (Flooded, Dry): 64  
 Palm trees (orchard): 62  
 Parachute(s): 35  
 Parameter Data: 17  
 Paths: 31, 68  
 Passenger: 32, 33  
 PBEM: see Play-by-E-Mail  
 Pillbox: 47, 57  
 Play-by-E-mail (PBEM): 5, 113, 114  
 Player Turn: 28  
 Pontoon Bridge: 73  
 Rail Road: 69  
 Random Armor Disablement: 43  
 Range: 17, 26 (also see Manual Appendix)  
 Reachable hexes: 13, 33  
 Reef: 71  
 Reinforcements: 12, 19, 28, 34, 107  
 Release(s): 12, 28, 37  
 Remove Units (from map): 11, 19  
 Replacements: 91  
 Retreats: 52  
 Riders: 33  
 Rivers: 67  
 Roadblocks : (see Blocked)  
 Roads: 31, 68  
 Roam Mode: 22  
 Rotate Map: 14

Rough: 64  
 Rubble: 66  
 Save APs for Firing: 11, 16, 19, 24, 30, 41  
 Save APs for Unloading: 11, 19, 24  
 Scale: 17  
 Scenario Editor: 101  
 Scenario Information: 12, 27  
 Selected hex: (see hot spot)  
 Selected (Unit): 21  
 Smoke: 24, 25, 39, 43, 47, 49, 102  
 Soft Attack (value/factors): 26  
 Soft Target: 17, 38  
 Special Building: 66  
 Special Icons (3D): 17  
 Spotted unit: 14  
 SP: see Strength Points  
 Status Bar: 20  
 Stream: 67  
 Strength Dialog: 12  
 Strength Point(s): 17, 23 (also see Strength  
     Point values listed for each unit in the  
     Manual Appendix)  
 Suburb: 65  
 Supply: 78, 79  
 Swamp: 63  
 Tank riders: (see riders)  
 Terrain: 25, 26, 59-73  
 Timer (Multi-player): 110  
 Tool Bar: 18  
 Rising Sun (main game): 9  
 Map Editor: 93  
 OOB Editor: 97  
 Scenario Editor: 101  
 Starshell: 55  
 Towing: 24, 33  
 Transporting (units): 32, 33  
 Trench: 56  
 Tutorial: 114  
 Two-Player Hot-Seat: 6, 112  
 Unit Data : (see Appendix)  
 Unit Handbook: 17, 26  
 Unit List: 25  
 Unknown Unit: 39  
 Unloading: 18, 30, 33  
 Upgrades (campaign game): 91  
 Victory Conditions: 82  
     for Dynamic Campaign: 85  
 Victory Points: 13, 80  
 Village: 65  
 Visibility: 13, 19, 25, 39, 102  
 VP: (see Victory Points)  
 Walls: 69  
 Water: 61  
 Weapon Data: 17  
     (also see Manual Appendix)  
 Weather: 27, 39  
 Wrecked (or wrecks): 25, 39, 54  
 Zoom-in: 20, 21  
 Zoom-out: 20, 21

## Technical Support

If you have a technical problem concerning the operation of our software, please contact our technical support staff. When you call or write, be at your computer if possible and have the following information ready: computer type, available hard drive space, total RAM, type of video card, and a list of options you chose when you installed the game.

TECHNICAL SUPPORT: 1-410-933-9191, M-F 9-5pm, EST

E-mail us at [tech@talonsoft.com](mailto:tech@talonsoft.com)

If you have internet access and would like to contact us on-line, you will find us at:

<http://www.talonsoft.com>



SOFT METAL CASTING

1/285 Micro Armor

1/2400 Micro-Fleet



C-IN-C has a selection of over 800 items of the finest military miniatures along with games and rules from some of the finest in the business. Additions to our inventory include Viking Forges pre-dreadnought era ships.

#### ORDERS

Orders may be placed by direct mail or phone by calling (612) 780-8554 from 8 AM to 5 PM Central, Monday thru Friday. No collect calls will be accepted. Only credit cards orders will be taken by phone. No C.O.D. orders.

#### DISCOUNTS

Order over \$40.00 gross — 10% discount

Order over \$80.00 gross — 15% discount

Order over \$160.00 gross — 20% discount

Order over \$320.00 gross — 25% discount

#### CREDIT CARDS

We accept Visa and Master Card for mail and phone orders.

Send for a FREE catalog!

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Send this coupon to:

C-IN-C

8080 University Avenue

Fridley, MN 55432

Or call (612) 780-8554



Need a hint?

Want more scenarios?

How about a cheat code?  
(not that you'd ever need one)

Visit

**THE WAR ROOM**

[www.talonsoft.com/warroom](http://www.talonsoft.com/warroom)

## Rising Sun Credits

**Producer:** Matthew Kreager

**Programming:** John Tiller

**Unit Database Research:** Joseph Hummel and Bob McNamara

**OOB Research:** Joseph Hummel

**Unit Handbook:** Matthew Kreager and Bob McNamara

**Art Director:** Tim Kipp

**Production Design:** Kurt Miller, Peter Muench, and Dawn Silwick

**Game Graphics:** Steve Estes, Kurt Miller & Brian Weber

**Intro Video:** Steve Estes

**Sound:** Jim Rose

**Playtest Coordinator:** Doug & Denise Bevard (Pegasus Enterprises)

**Scenario Design:** Doug Bevard, Dave Blackburn, George Chow, Bart Gauvin, Glenn Saunders, John Schettler, and Christopher Wilson

**Dynamic Campaign Game Design:** Doug Bevard

**Linked Campaign Game Design:** Dave Blackburn, Tom Herrschaft, Glenn Saunders, and Christopher Wilson

**Playtesters:** Eddy Acevedo, Mike Avanzini, Ernie Berg, Arne Beruldsen, Dave Blackburn, Eric Boyle, George Chow, Frank Coutinho, Frank Donati, Lanny Erdos, Bart Gauvin, Dave Hickman, Jay Karamales, Marshall Ladd, Michael Lamb, Mike LaPlante, Paul Massucci, Christopher Mello, Lin Parkh, Jason Petho, Tim Powers, Ken Rutsky, Glenn Saunders, Fred Schwarz, Michael Shepard, Brian Spencer, Craig Stewart, and Brian Wynott

**Special Thanks to:** Eddy Acevedo, Frank Baldwin, Doug Bevard, Nigel Evans, Craig Foster, David Makin, Brendan Moyle M.Sc., Ph.D., Robert E. Passanisi, Ian Raine, Gordon Rottman, Glenn Saunders, Craig Swain, and Akira Takizawa; and to the Beta Brigade for being up on the Discussion Board when we couldn't—you know who you are!

**President & Chief Creative Officer:** Jim Rose

**VP of Business Development:** Jamie Leece

**General Manager:** Chris Mate

**Executive Producer:** Robb Alvey

**Marketing Director:** Greg Bauman

**Marketing Manager:** Mark Moon

**Marketing Communications Coordinator:** Chris Larkin

**Public Relations Director:** Mike Gathagan

**Art Director:** Mike Snyder

**Graphic Artist:** Dawn Silwick, Pete Muench and Chrissy Lagna

**Webmaster:** Robert Fletcher

**Technical Support/QA Director:** Phil Santiago

**Computer Specialists:** Frank Runge, Ron Johnson

**Technical Support:** Lisa Nawrot, Pete Stewart, Kathy Richardson, Joe Covello, Patty Saneman, Stacey Sharpe, Kathy Young

**Quality Assurance:** Chien Yu, Kai Ma, Josh Rose, Andre Liggins, Joshua Noll

**Special thanks to:** Linda Wratchford, Mona Wratchford, Peg Zoltan, Anne-Marie Sims, Patty Santiago and Sarah Alvey



# ORDER FORM

Make checks payable to TalonSoft Inc. Mail this order form to TalonSoft Inc., 9900 Franklin Square Dr., Baltimore, MD 21236 or visit our Web Page at <http://www.talonsoft.com>, or call us direct at 1-410-933-9191 ex.100 (orders only please).

| PRODUCT NAME   | QUANTITY     | PRICE   | TOTAL   |       |
|--|--------------|---------|---------|-------|
| <input type="checkbox"/> ANY BATTLEGROUND PRODUCT, 1-9                                 | VOL. # _____ | # _____ | \$14.95 | ----- |
| <input type="checkbox"/> AGE OF SAIL   |              | # _____ | \$14.95 | ----- |
| <input type="checkbox"/> WEST FRONT  |              | # _____ | \$14.95 | ----- |
| <input type="checkbox"/> WEST FRONT: OPERATION SEA LION                                |              | # _____ | \$19.95 | ----- |
| <input type="checkbox"/> WEST FRONT: ELITE EDITION                                     |              | # _____ | \$29.95 | ----- |
| <input type="checkbox"/> EAST FRONT  |              | # _____ | \$14.95 | ----- |
| <input type="checkbox"/> EAST FRONT CAMPAIGN CD1                                       |              | # _____ | \$14.95 | ----- |
| <input type="checkbox"/> EAST FRONT II   |              | # _____ | \$29.95 | ----- |
| <input type="checkbox"/> EUROPE IN FLAMES  |              | # _____ | \$39.95 | ----- |
| <input type="checkbox"/> TRIBAL RAGE   |              | # _____ | \$9.95  | ----- |
| <input type="checkbox"/> THE OPERATIONAL ART OF WAR VOL I: ELITE EDITION               |              | # _____ | \$29.95 | ----- |
| <input type="checkbox"/> THE OPERATIONAL ART OF WAR VOL 1: WARGAME OF THE YEAR EDITION |              | # _____ | \$29.95 | ----- |
| <input type="checkbox"/> THE OPERATIONAL ART OF WAR VOL II                             |              | # _____ | \$29.95 | ----- |
| <input type="checkbox"/> THE OPERATIONAL ART OF WAR VOL II: FLASHPOINT KOSOVO          |              | # _____ | \$14.95 | ----- |
| <input type="checkbox"/> THE OPERATIONAL ART OF WAR VOL II: ELITE EDITION              |              | # _____ | \$39.95 | ----- |
| <input type="checkbox"/> THE OPERATIONAL ART OF WAR VOL: CENTRY OF WARFARE             |              | # _____ | \$39.95 | ----- |
| <input type="checkbox"/> BATTLE OF BRITAIN   |              | # _____ | \$19.95 | ----- |
| <input type="checkbox"/> 12 O'CLOCK HIGH: BOMBING THE REICH                            |              | # _____ | \$29.95 | ----- |
| <input type="checkbox"/> JAGGED ALLIANCE 2   |              | # _____ | \$19.95 | ----- |
| <input type="checkbox"/> HIDDEN & DANGEROUS  |              | # _____ | \$19.95 | ----- |
| <input type="checkbox"/> HIDDEN & DANGEROUS Strategy Guide                             |              | # _____ | \$14.95 | ----- |
| <input type="checkbox"/> HIDDEN & DANGEROUS: DEVIL'S BRIDGE                            |              | # _____ | \$19.95 | ----- |
| <input type="checkbox"/> HIDDEN & DANGEROUS:ACTION PACK                                |              | # _____ | \$39.95 | ----- |
| <input type="checkbox"/> RISING SUN  |              | # _____ | \$19.95 | ----- |
| <input type="checkbox"/> TZAR:THE BURDEN OF THE CROWN                                  |              | # _____ | \$39.95 | ----- |
| <input type="checkbox"/> CODENAME EAGLE  |              | # _____ | \$39.95 | ----- |
| <input type="checkbox"/> LEMMINGS REVOLUTION   |              | # _____ | \$19.95 | ----- |
| <input type="checkbox"/> FLYING HEROS  |              | # _____ | \$29.95 | ----- |
| <input type="checkbox"/> MARTIAN GOTHIC  |              | # _____ | \$29.95 | ----- |
| <input type="checkbox"/> DOGS OF WAR   |              | # _____ | \$39.95 | ----- |
| <input type="checkbox"/> METAL FATIGUE   |              | # _____ | \$39.95 | ----- |
| <input type="checkbox"/> ENEMY ENGAGED   |              | # _____ | \$39.95 | ----- |
| <input type="checkbox"/> IMPERIAL STRIKE   |              | # _____ | \$19.95 | ----- |
| <input type="checkbox"/> ROWAN'S BATTLE OF BRITAIN                                     |              | # _____ | \$39.95 | ----- |
| <input type="checkbox"/> AIRPORT TYCOON  |              | # _____ | \$19.95 | ----- |
| <input type="checkbox"/> JETFIGHTER IV   |              | # _____ | \$39.95 | ----- |
| <input type="checkbox"/> DEVIL INSIDE  |              | # _____ | \$39.95 | ----- |
| <input type="checkbox"/> MOTOCROSS MANIA   |              | # _____ | \$19.95 | ----- |
| <input type="checkbox"/> DEATH TRACK RACING  |              | # _____ | \$19.95 | ----- |
| <input type="checkbox"/> SHEEP   |              | # _____ | \$29.95 | ----- |
| <input type="checkbox"/> AGE OF SAIL II (WINTER)                                       |              | # _____ | \$39.95 | ----- |

\* Add \$6.00 shipping and handling for the first copy (\$8.00 for Alaska, Hawaii and Canada) and \$2.00 for each additional copy.  
Foreign orders add 20% for shipping to above.

# Maryland residents add 5% sales tax.  
Prices subject to change without notice.

Sub-Total: \$ \_\_\_\_\_

# Sales Tax: \$ \_\_\_\_\_

\* Shipping and Handling: \$ \_\_\_\_\_

Total: \$ \_\_\_\_\_

All titles are PC CD-ROM only and are Windows 95/98 compatible.

Credit Card Information:  Mastercard  Visa  American Express  Discover

Card holder's name: \_\_\_\_\_ E-mail: \_\_\_\_\_

Card holder's address: \_\_\_\_\_

Card number: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Card holder's phone number: (\_\_\_\_\_) - \_\_\_\_\_ - \_\_\_\_\_

(Ship to) Name: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_