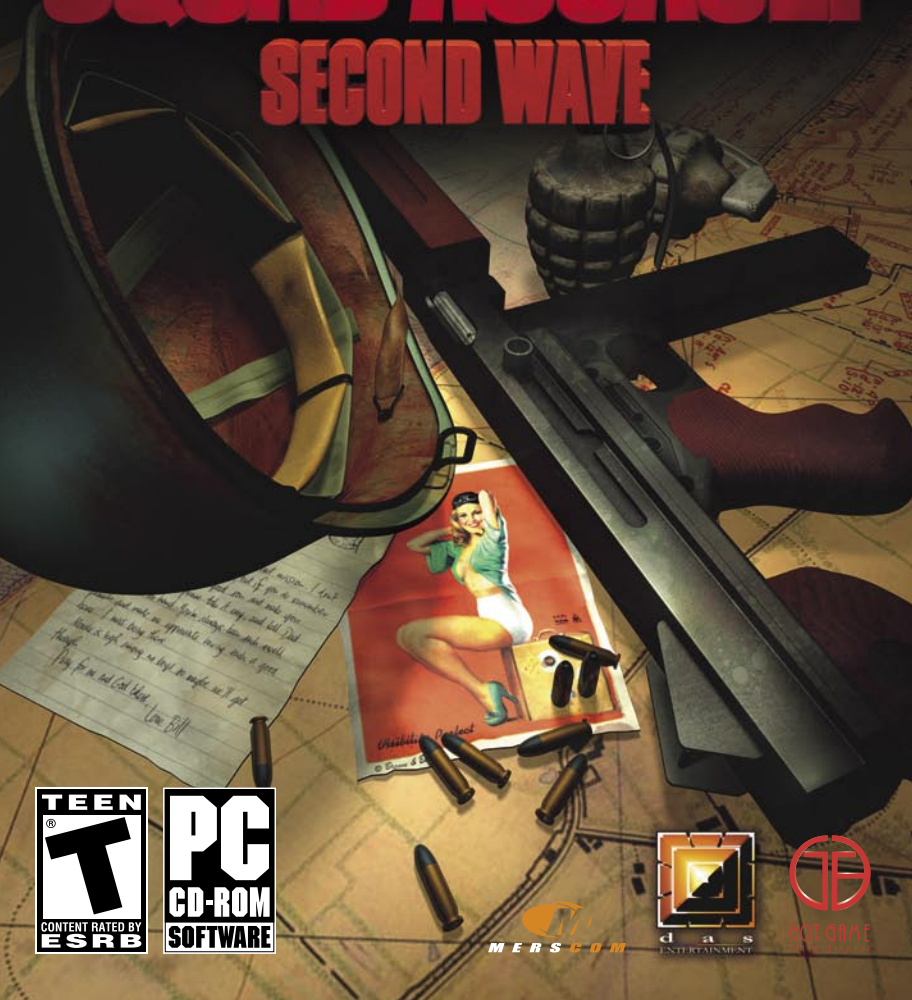


# SQUAD ASSAULT

## SECOND WAVE



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## 1.0 INTRODUCTION

On June 6th, 1944, the Western Allies (America, Great Britain, and Canada) took part in the greatest amphibious invasion in the history of the world. Their invasion target was a long stretch of shale beach in Normandy, France that would be forever after immortalized as Omaha, Utah, Gold, Juneau, and Sword Beaches. These were the gateways through which Adolph Hitler's Atlantic Wall would soon crumble under the weight of the Allies' combined military might.

The fighting in Normandy from June to July 1944 can be best categorized as a slugfest. The excellent defensive terrain was used by the Germans to their fullest advantage, and despite having only token air support in the face of rampaging American air strength, the Germans held on to the terrain firmly, making the Allies pay dearly for each hedgerow crossed.

Only after nearly two solid months of fighting did the stalemate break. When Operation Cobra was unleashed on July 25, a hole three miles wide was torn in the German lines, through which victorious American armies poured. It would be the beginning of the end for the Germans, as strategic blunders by Hitler spent the lives of his soldiers in futile attacks and defensive actions. By August 1944, Paris was liberated and the majority of what was left of German strength in France was rapidly retreating towards the Rhine River. Hitler's Nazi empire was destined to collapse nine months later, smashed to ashes between the powerful Western Allies and Stalin's numberless Red Army.

SQUAD ASSAULT: SECOND WAVE (SA2NDWAVE) puts you in the role of a company commander, able to lead up to 240 men in twenty units through some of the most intense fighting of World War II. You may choose to lead German, American, British, Canadian, or French troops into the carnage of northwestern Europe from June 1944 to early 1945.

This tactical combat system is designed to provide you with a 3D real-time battle simulation with the underpinnings of unit management. Over 100 weapons and 100 tanks are available to the five nationalities portrayed in over 40 Battles, 6 Operations, and 3 Campaigns. These scenarios are easily manipulated to make more challenging or easier on the new user.

If that's not enough, the Editor feature allows you to create your own Battles, Operations, or Campaigns, or to edit an existing one. The addition of this feature allows you to create nearly an infinite number of possible conflicts within SA2NDWAVE.

### 1.01 System Requirements

Pentium III 700 MHz or equivalent processor  
256 Megabytes of RAM  
Windows© 98, Windows 98 SE, Windows ME, Windows 2000, or Windows XP.  
4 X CD-ROM drive  
16 MB 3D Card or Higher capable of 1024 x 768 resolution / 32 Bit color  
DirectX 8.1  
Microsoft compatible mouse  
250 megs of free hard drive disk space

The option to install DirectX 8.1 will appear during game installation. At the end of the installation, you will be prompted to register SA2NDWAVE over the Internet. For network play, you need a DirectPlay compatible network adapter.

### 1.02 Installing the Game

You must install SA2NDWAVE to your hard drive and have the CD in your CD-ROM drive to play this game.

To install the game, insert the CD into the CD-ROM drive. When the Installer window appears, click on the Install option. If you have disabled the Windows Autorun, or if it does not function, use Windows Explorer to view the CD and double-click on the Setup icon. Follow all on-screen prompts to complete the installation.

### 1.1 STARTING THE GAME

SA2NDWAVE may be started from any one of three different methods:

Place the CD in the CD-ROM drive. The Autorun program should appear; select Play the Game to begin.

From the Windows taskbar, click Start, Programs, and highlight ERIC YOUNG'S SQUAD ASSAULT. Select the ERIC YOUNG'S SQUAD ASSAULT program item to begin.

From the Windows desktop, double-click on the ERIC YOUNG'S SQUAD ASSAULT icon to begin.

### 1.2 UNINSTALLING THE GAME

Uninstall the game can be done in one of two ways:

Place the CD in the CD-ROM drive. The Autorun program should appear; select Uninstall the Game to remove the program.

From the Windows taskbar, select Start, Settings, and Control Panel. Double-click on Add/Remove Programs, locate and click on ERIC YOUNG'S SQUAD ASSAULT, and click Add/Remove.

### 1.3 TUTORIAL

SA2NDWAVE comes with three ready-made Tutorial Battle scenarios to help you learn the ropes and get a feel for the system before wading into your first combat. These step-by-step instructions for jumping immediately into the SA2NDWAVE system are located near the back of the book in section 7.0, "The Tutorials."

Note: Camera controls are detailed in section 3.3.3, Battlefield Controls.

## 2.0 GAME OVERVIEW

You have greater flexibility as a company commander than your historical counterparts; specifically, you are able to command a variety of units, including squads, tanks, armoured vehicles, artillery, air strikes, and naval gun support. At the beginning of every game, you may have the ability to 'buy' new units to add to your force.

All the while, keep in mind that the soldiers under your command have personal attributes that make them react to their environment like soldiers do on a real battlefield. You will learn that no plan survives contact with the enemy. If you order your men into dangerous situations and the enemy shoots at them they will act on their own to seek cover and return fire. When in severe danger they will become scared, disobey orders, retreat, or possibly even surrender.

# SQUAD ASSAULT SECOND WAVE

Play Game Help/Player Letter Options Exit

**MULTIPLAYER** Allows the player to connect to other players via TCP/IP or a LAN connection.

**EDITOR** Create new scenarios or edit the existing scenarios that ship with the game.

**OPTIONS** Select to change several settings in the game to show information about his troops and enhance or limit graphics in the game.

**EXIT** Select to close SA2NDWAVE.

## 2.1.1 Options Screen



**Tree Render** Select On to display trees (note that you may press L during the game to remove trees within 75 meters of the camera's view). This increases game speed and makes it easier to spot units.

**Unit Markers** Select On to display small side-specific icons (American star, German cross) above units.

**Show Blood** Select On to display blood.

**Weather FX** Select On to view weather. Turning off

**Soldier Render Cut 100-300** Select the render cut rating (between 100 and 300, inclusive) for each soldier. The lower the render cut, the lower the detail but the faster the game will play.

### 2.1.1.2 Camera Options

**Camera High 100-300 meters** Select the maximum height attainable by the camera's view.

**Camera Low 2-25 meters** Select the minimum height attainable by the camera's view.

## 2.1 TITLE SCREEN

The following items are accessible from the SA2NDWAVE Main Screen:

**PLAY GAME** Opens the Scenario Selection screen. From there, you may load a saved game file or select any of the single player Battles, Operations, or Campaigns that are provided with SA2NDWAVE.

The Options Screen is used to set controls in the game to render cut on units, texture detail, tree render, unit base markers, turning blood on and off, showing the Jump Map and Orders menu, turning music on and off, tank engine sound effects, ambient sound, and camera height.

### 2.1.1.1 Graphic Options

**Texture Detail (High, Low)** Select High for higher-end machines. Selecting Low will speed up the game on any system.

### 2.1.1.3 Sound Options

**General Sound**

**Music** Select On to play background music, or Off for none.

**Tank Engines** Select On to hear tank engine noise, or Off for none.

**Ambient Sound**

**Gunfire** Select On to play background gunfire. This has no effect on play but adds the feeling that the player is part of a larger battle in progress.

**Birds** Select On to hear birds' chirping in the background

**None** Select On to turn off all ambient sound (gunfire and birds).

## 3.0 PLAY THE GAME



When all options have been selected, click Play Game to bring up the Scenario Selection Screen. From here, the player will choose a Battle (a single engagement on one map), Operation (a linked number of Battles on two or three maps), or a Campaign (a linked number of Operations on four or more maps). To load any of these selections click on the appropriate type (Battle, Operation, or Campaign) and select the desired game. The player can also select varying realism settings to define their game's difficulty.



**Select a Force** Select either the Allies or Axis.

**Difficulty Level** Each column represents the Difficulty Level for the Allies (left column) and Axis (right column). This sets the value of objective flags for each side as a multiplier; the lower the difficulty, the higher the multiplier. These flags also count for gauging command points in Operations and Campaigns.

**Realism** You can change the indicators by clicking in the adjacent check boxes. Each option turned on will reduce the realism setting of the game by 25%.

**Individual Ability** If off, all soldiers or vehicle crew will have the same base chance to do anything.

**Command Control** If off, all of your units will ignore self-preservation and attempt to carry out your orders until they succeed, are re-directed, or die.

**See Enemy Units** Select to remove limited intelligence of units and allow the player to see all enemy units.

**End Game Warning** Select to allow a player who has no victory locations two minutes to recapture one.

**Combat Lethality** Allows the player to customize the base accuracy of every weapon in the game on a scale from 0-9, with 0 being the lowest accuracy and 9 being the highest. This does not affect armor penetration or high explosive effects in the game. It lowers and raises the probability of a single shot hit probability. The default setting is 5, but experienced players looking for a more realistic game will want to lower this level to 2 or 3.



**Battles** Select to bring up a list of Battle scenarios. Battles are single-map engagements and provide a quick game, depending on the number of units and objectives involved. When completed, points are counted and the victory level is determined.

**Operations** Select to bring up a list of Operations. Operations are fought as two or three battles tied together. When a battle is completed the command points for that battle are saved and the next battle is fought. This continues until all battles are decided and the victory level is determined.

**Campaigns** Select to bring up a list of Campaigns. Campaigns are fought as four or more battles tied together. When a battle is completed the command points

for that battle are saved and the next battle is fought. This continues until all battles are decided and the victory level is determined.

The Grand Campaign provides an extra twist by not being linear like the other Operations and Campaigns. It has different paths that are decided by your winning or losing of a battle, creating virtually unlimited gameplay possibilities.

**Saved** Select to bring up a list of player-saved games.

When a category is selected, a corresponding list will appear in the window below. The active scenario is highlighted in red. To move up or down the list, either click on the up and down arrows immediately to the left of the window, or use your keyboard's up and down arrow keys. As each scenario is highlighted, an overview map will appear in the lower right of the screen. Click View Map to load the map and get some valuable insight into terrain features and victory locations, as well as possible attack routes and defensive positions. This tool is extremely valuable when determining which forces would be best to do the job at hand (see Task Force Composition).

**Select Game Time (15, 30, 45, Open)** Determines how long a battle will be fought in game minutes. On the Open setting, the game will continue until one side's units are all destroyed and/or have a broken morale state.

**Fire Support Delay Options (10, 30, 60, 120, 360)**

**Auto Pause** Select to start the game with Auto Pause engaged. The player can set the pause timer before the game starts as well (Auto Pause Time).

**Auto Pause Time** Allows the player to set the pause length to 15-60 seconds (inclusive).



**Pause with orders accepted** Allows the player to pause the game at any time. This allows more time to think over complex tactical situations and allows orders to be issued without immediate pressure.

**Update Speed (Low, Medium, High)** Used in multiplayer to set the frequency of game updates, which affects the visible frame rate and tolerance for network delays.

**Low** Attempts up to 10 frames per second and advances 1/20th of a second per update. This setting will produce the smoothest animation and game-play, but will run more slowly on a computer that cannot handle 10 frames per second, and second packet round trip. If you have a high-end computer and play multiplayer games with a good network connection, use this setting.

**Medium** Attempts 20 frames per second and advances 1/15th of a second per update. It is somewhere between the other two settings.

**Fast** Attempts 30 frames per second and advances 1/10th of a second per update. This setting will produce choppy animation and game-play, but will run faster on lower-end computers. Using this setting may also prevent "waits" (periodic animation pauses that may result when one machine suspends the game while waiting for remote data) in a multiplayer game under slow network conditions. If your computer is close to the minimum system required to play the game or you experience problems with a multiplayer game, use this setting.

**Next** Proceed to the Briefing Screen.

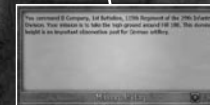
**Back** Return to the Title Screen.

### 3.01 The Strategic Briefing Screen



The Strategic Briefing Screen will allow the player to view a map of the area that SA2NDWAVE takes place in (France). Each Battle, Operation, and Campaign is represented on the map by a small green dot; the currently selected mission's dot has a red circle around it with red arrows pointing towards it.

The name of the current battle is displayed in a small window above the map; click the Review Briefing screen to read an overview of your mission. When finished, click Next to proceed to the Task Force screen, where you will select the makeup of your units.



### 3.1 TASK FORCE SCREEN



After you have chosen a Battle, Operation, or Campaign, the Task Force screen will appear. Here, you can select new units, rest fatigued ones (in Operations or Campaigns only), or remove them from the battle (in Battles only). You may also inspect the units you'll be fighting the battle with by selecting a team with a right mouse click; the unit's information will appear in the lower left Unit Information box. Two windows, the Task Force Pool and Task Force, appear in the center of the screen:

**NOTE:** Removing units from the Task Force window is akin to releasing them to the "theater reserve." In this manner, the unit's accumulated experience is lost, but the unit type will appear in the Task Force Pool window. Only remove units that are decimated to the point of ineffectualness.

The Task Force Pool window indicates the available units that may be chosen for the upcoming battle; each has an associated Command Point cost (under the column labelled "Point"), as well as a victory point value to the enemy if eliminated (under the column labelled "Value"). The number of units available from the Pool is finite; if after selecting a unit it disappears from the Pool, no more of that type are available for the scenario.

The Task Force window shows your current Task Force's order of battle, listing all the squads, guns, and vehicles in the user's Task Force. You may select a squad by clicking on it. Right clicking on a unit will display a description of that unit in the Unit Information window. You may also inspect and edit the enemy units by left clicking on the Side Switch in the middle of the screen. The opponent's Task Force can only be viewed in this manner when playing in single player mode.

**CAUTION:** Selecting and/or editing enemy units acts as a spoiler. If you want the full effect of playing SA2NDWAVE, do NOT inspect the enemy's Task Force.

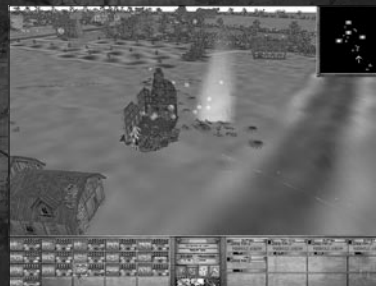
The player may purchase units from the Task Force Pool by left clicking on it. If you have enough Command Points, the cost is subtracted from your Points Available total, and the unit is moved to the Task Force order of battle. If you change your mind, right click on the unit in the Task Force window.

A player may also remove a unit from the user's order of battle (in Operations or Campaigns only). To remove a unit, click on it in the Task Force order of battle window. The unit will then be moved from the order of battle to the Task Force Pool. The user is not compensated for removed units. A removed unit in the Task Force Pool will be shown as a number in parenthesis. These units can be transferred back to the player's order of battle for no command point cost. Removed units will lose all of its current soldiers and be a new unit when it returns to action as a replacement unit.

**NOTE:** Units in campaigns and operations are brought back up to full strength with replacement soldiers. These replacements are automatic and do not require any command points.

When you are satisfied with your Task Force strength, click Next to start the game. Click Back to return to the Scenario Selection screen to start over.

### 3.2 THE BATTLEFIELD DISPLAY



From here, you will control your men in an attempt to capture the enemy's victory locations while protecting yours in kind. Along the way elimination of enemy strength is important to attain victory. In pursuit of these goals, the Battlefield Display will assist you with a variety of information displays and the ability to quickly access friendly troops anywhere on the battlefield.

The largest window is the Battlefield View, where the battle in progress is observed. You may select friendly troops in this display and issue orders as well.

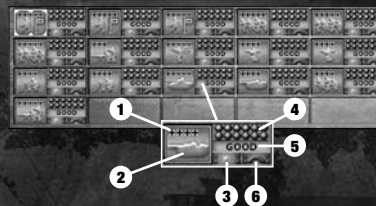


A jump map is also displayed in this window, showing the entire accessible area of the battlefield.

A red and white triangle points in the direction you are viewing in the main display. Blue dots are friendly troops. Red dots are enemy troops. A yellow dot is a unit currently selected. A flashing blue dot indicates it is under fire.

Flags (red/black for Germany, white star/green background for Allies) represent Victory Locations. If grayed out, they have not yet been captured.

#### 3.2.1 Unit Monitor



The Unit Monitor display at the bottom left of the screen shows all the units in your order of battle. It also gives you current information on their strength, morale, and orders they are currently under. You may select a squad with a single click to issue orders. Double clicking on the squad's icon will place the camera in third person view of the unit leader.

- 1 Unit Experience (1-5 icons)** Represents the unit's overall ability as a combat unit.
- 2 Unit Icon** Shows the unit type.
- 3 Engaged/Under Fire** A small red light will blink when the unit is under enemy fire.
- 4 Strength** The number of men (and their statuses) in the unit is shown with green dots. Each green dot represents one man in the unit. As the battle progresses, these men may become injured or die; in these cases, the green dot will change to red to show a casualty. If all dots are red, the unit is wiped out.
- 5 Morale Status**
- 6 Current Orders**

### 3.2.1.1 Unit Strength Indicators

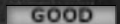


Dots are all green (good health): All men in the unit are in good health.

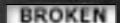
Dots are green with some orange (wounded) and some red (killed): Some men in the unit have been wounded or killed.

Dots are all red or orange: All men in the unit are wounded or dead.

**Morale Beneath Strength** is the Morale bar, showing the unit's current mental state. 'Good' is the best result, and the status that units begin a battle in.



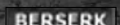
The unit is in good condition and will obey orders.



The squad has stopped obeying orders, and may rout if they come under more pressure. They may rally given time, which can be helped with the presence of a Leader.



The squad has decided to make a run for it; they will move out of line of sight of the enemy and attempt to rally. A Leader nearby will help them rally.



A squad has gone over the edge. The soldiers have lost their feelings for themselves and are acting irrationally to bring about an end to the situation.



The squad has surrendered to the enemy.

**Current Orders** A graphic display of the unit's current orders (see 3.3.1, The Orders Menu).

### 3.2.2 Support Monitor



At bottom center of the screen, game controls and support buttons may be found. From here, a player may view a unit title, the time elapsed, weather, and select from artillery, air, and naval support.

**Soldier Information** A unit's type is displayed in the top few lines when a unit icon is selected from the Unit Icon screen.

**Timer** The elapsed time in the current battle.

**Weather** Indicates the current weather conditions (Rain, Snow, or Fog)



Click to end Deployment Mode and begin the battle.



Click to bring up an icon map (orders may be issued from this map).



Click to bring up the Mission Briefing.



Click to surrender (to end the current game).

In addition, the bottom row displays all available Fire Support for the current battle. Each button has a light in its lower right corner; green indicates available, while red indicates not available.

**NOTE:** The amount of time it takes for the support to arrive (in seconds) is defined by the player under Fire Support Delay Options in the Scenario Selection screen.



Click to call in air support.

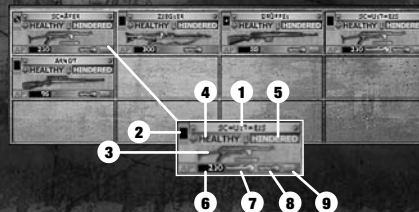


Click to call in artillery support.



Click to call in naval support.

### 3.2.3 Squad Monitor

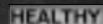


The Squad Monitor gives a detailed report on whatever squad, gun, or vehicle is currently selected.

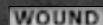
Each soldier's box contains vital information regarding their loadout, wound level, mental state, and firepower.

- |                   |                          |                                  |
|-------------------|--------------------------|----------------------------------|
| 1 Name            | 4 Physical Health Status | 7 Heavy Weapon (if any)          |
| 2 Rank            | 5 Mental Health Status   | 8 Fragmentation Grenade (if any) |
| 3 Personal Weapon | 6 Ammo Remaining         | 9 Smoke Grenade (if any)         |

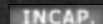
#### 3.2.3.1 Physical Health States



Soldier is in good health.



Soldier is injured. If playing an Operation or Campaign, they may return to action for the next battle.

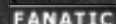


Soldier is seriously injured and must be evacuated.

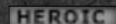


Killed In Action; tag 'em and bag 'em.

#### 3.2.3.2 Mental Health States



The soldier is acting above and beyond the call of duty.



Soldier is highly confident and motivated, and is performing better than usual.



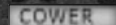
The soldier is feeling well and not under stress.



The soldier is under fire and/or slightly stressed, but can fight back.



The soldier is hiding from/avoiding enemy fire but may return fire.



The soldier is keeping his head down and will fire only sporadically.



The soldier has been gripped by fear; his combat efficiency is dramatically reduced.

### 3.2.4 Tactical Artificial Intelligence (TAI) Display

US Browning .30 cal under fire.  
Parker is wounded.  
Darin is dead.  
US Replacement Squad taking losses.  
Callina is wounded.  
US Platoon HQ under fire.

The TAI is a small window appearing in the lower right of your main screen. It will display important messages from the men under your command regarding confirmation of fire orders, taking objectives, or coming under enemy fire. These messages help the player remain focused on a single task while retaining overall knowledge of what's happening on the battlefield.



### 3.2.5 The Icon Map

Press the Icon Map button (detailed in section 3.2.2, above) to bring up an overall map of the battlefield, with the player's units represented as icons. These icons are the same types that are found on the Unit Monitor. Clicking on a unit icon in this display highlights it as well as the corresponding unit on the Unit Monitor. Orders may be issued from this screen as well; either click on a unit or press O to bring up its Order Screen.

## 3.3 THE BATTLEFIELD



When a battle begins the game starts in Deploy Mode. In this mode, you can move your troops to new positions, issue move orders, and plot fire orders. Fire missions for artillery, air strikes, and naval gunfire can be plotted as well. You can pan your view around the battlefield with the camera to review the situation and devise a strategy.

The ground will have two colored grids superimposed on it. The red grid area represents where the enemy deploys, while the blue grid area is where your soldiers can

be deployed. The portion of the map with no grid starts as no man's land, off limits to both sides' initial deployment. Place your troops to your best advantage by selecting points that offer the shortest distance to cover or the most advantageous ground. After viewing the battlefield (if you wish), you may want to reposition your forces. To do this, open the Orders Menu.

### 3.3.1 The Orders Menu

The Orders Menu is the heart of the game, where soldiers, vehicles, and guns are ordered to move, fire, and defend themselves. While your soldiers can take care of themselves if they're fired upon, they'll do nothing else without an order—which is where you, their company commander, comes in. Initially, the computer will place your soldiers within the blue grid area on the map, but you may want to alter this setup to conform to the strategy you devise. The orders you may issue in Deployment Mode are the same you can issue during a battle, making for a flexible setup and preparing your soldiers for what lay ahead.



Clicking on a squad or vehicle calls a pop up menu listing orders for that unit. These orders are: Assault, March, Caution, Defend, Ambush, Hide, Smoke, Fire, and Deploy. An order may then be given to the squad or vehicle by clicking on the specific order. To close the menu without issuing an order, simply click anywhere outside the menu and it will disappear. Orders may also be given to a squad or vehicle by using hot key commands.

Right click anywhere on the screen to cancel an order and close the Orders menu.

Prohibited orders for the squad or vehicle cannot be selected and are grayed out. For example, a squad that has used all of its smoke grenades cannot select the Smoke option.

When an order is issued, a line color-coded to the order type is anchored to the unit being given the order and tied on the other end to the mouse cursor. This "anchored" line is the basis for issuing orders to your units; click where you want the order to be carried out. An order-specific icon will appear on the ground where you clicked.

**NOTE:** To make a vehicle go in reverse, click less than 20 meters behind the selected vehicle during the issuing orders stage.

#### 3.3.1.1 Unit Markers



Spotting the enemy in the hedgerow country of Normandy can be a daunting task; not only that, but keeping tabs on your own men can add astronomical difficulties. In order to lighten this load, SA2NDWAVE has a Unit Marker feature that helps you easily spot soldiers and vehicles. Above all of your individual soldiers is a marker that helps to not only distinguish between friend and foe, but also to spot your men easily in

the Normandy countryside. These markers are graphical symbols of the nationality you're playing, and are colored blue. The enemy's markers are graphical symbols of the nationality they're playing, and are colored red.

**NOTE:** Only enemy units actually spotted by your soldiers will appear.

When you've clicked on a unit's member to select that entire unit, a yellow downward-pointing triangle will appear over the head of the selected individual (and a yellow box will surround his box on the Squad Monitor). The other members of this unit will have yellow nationality markers to denote it is the unit currently active. Other units not part of the one you've selected will remain blue.

For more on unit selection, see 3.3.4, Battlefield Controls.

#### 3.3.1.2 Movement Orders

Squads and vehicles have three movement orders: Assault, March, and Caution. When a movement order is selected, a color-coded line appears anchoring itself to the selected unit on one end and attached to the cursor on the other. Move the cursor to where you want the selected unit to move



and click. The color-coded line will disappear, and a corresponding colored marker is also set on the ground marking where the squad or vehicle will move. The squad or vehicle will attempt to reach this point by the order type the user selected.

**NOTE:** The soldiers of a given unit may vary in selecting a path when following the line (owing to terrain, or the presence of the enemy).

### 3.3.1.2.a Waypoints

Squads and vehicles can be given precise movement plans by using waypoints. To set waypoints for them, select the unit and then the movement order type to be issued. Hold the SHIFT key down and then, in order, click on each point you'd like the soldiers to move to. A movement line corresponding to the movement order color type connects each waypoint. An Orders Marker will appear at every waypoint you set as the unit moves. When you have completed the movement path, release the SHIFT key and the unit will move as ordered.

Note: You can select multiple movement types while using waypoints. For example, you may choose to move a squad quickly down a road (Assault), and then move cautiously towards a farmhouse (Caution). Combat Orders may also be issued (allowing an Assault move down the road, then a Fire command into the farmhouse, for example).

#### 3.3.1.2.1 Assault (hotkey: Z)

An Assault order tells the soldiers to move as quickly as possible to the selected point. While assaulting, soldiers ignore cover and fire their weapons at targets of opportunity once they have reached their destination. Assaulting soldiers will engage in hand-to-hand combat if they encounter enemy squads at their destination. Squads and vehicles with Assault orders will default to the Defend order once they reach their destination.

Assault orders for tanks and other armed vehicles are very similar. Tanks will move at top speed when assaulting and fire their guns at targets of opportunity when they reach their destination.

This command will move troops at the fastest possible speed, but will make them more vulnerable to the enemy since their overriding focus is to get to the selected point as quickly as possible. Vehicle crews will remain exposed when assaulting until they perceive a threat or are fired upon.



The graphic that appears on the ground where the Assault order was issued.

#### 3.3.1.2.2 March (hotkey: X)

This tells the soldiers to move at a normal pace. Marching squads do not use cover as well nor are they as observant as squads who are under Caution orders, but they do not move as fast as if they were under Assault orders. Also, unlike Assault orders, soldiers under the March command will fire on enemy units if the opportunity presents itself.

Tanks and vehicles under March orders move at medium speed and are ready for combat. They will stop and shoot at targets of opportunity along the way to their destination.

When squads or vehicles reach a location they have marched to they then switch to Defend orders.



The graphic that appears on the ground where the March order was issued.

#### 3.3.1.2.3 Caution (hotkey: C)

When a Caution order is issued, the soldiers affected will crawl toward the selected point slowly and quietly. Caution is the slowest form of movement. Squads moving under a Caution order try not to initiate combat. Caution is an undesirable move order in potential hand-to-hand combat situations. When a squad or vehicle moves to a location using Caution movement orders, they will then default to Defend orders and wait for the enemy.

Tanks and vehicles move slowly and are buttoned up while under Caution orders, which greatly reduces the ability of the crews to see hidden enemy units. However, infantry units can spot enemy units much easier in this mode than if they were in Assault or March.



The graphic that appears on the ground where the Caution order was issued.

### 3.3.1.3 Combat Orders

Your soldiers have a variety of offensive and defensive commands to choose from, including direct fire, defense, and laying smoke. Select the unit and click the area you wish to affect.

#### 3.3.1.3.1 Defend (hotkey: V)

Units that have been ordered to Defend receive maximum cover benefits from their surrounding terrain and will fire at enemy units within the defined range of the order or the maximum range of their weapons, whichever is shorter. Usually, a unit's weaponry will have a longer range than what is signified by the arc, but this limit represents the unit's effective range (use the Fire order to engage targets at longer ranges). A blue arc appears in front of the unit, signifying the facing of the unit; it also shows the maximum range at which the soldiers will open fire on the enemy. Defending units will fire at the enemy within the arc that are in line of sight and that they have a chance of damaging.



The graphic that appears on the ground where the Defend order was issued.

#### 3.3.1.3.2 Ambush (hotkey: B)

Ambushing units use stealth and camouflage to make them virtually impossible to spot, and will fire at enemy units within the defined range of the order or the maximum range of their weapons, whichever is shorter. The heavier the terrain, the easier it is to execute Ambush orders. A purple arc appears in front of the unit, signifying the facing of the unit; it also shows the maximum range at which the soldiers will open fire on the enemy. This distance is shorter than it is when given the Defend order, signifying that soldiers in Ambush mode are attempting to remain hidden and therefore have a shorter engagement range. Ambushing units will fire at the enemy within the arc that are in line of sight and that they have a chance of damaging.



The graphic that appears on the ground where the Ambush order was issued.

#### 3.3.1.3.3 Hide (hotkey: N)

Units that have been ordered to Hide will attempt to seek cover and avoid enemy contact if possible. If cornered, the unit will defend itself.



The graphic that appears on the ground where the Hide order was issued.

#### 3.3.1.3.4 Smoke (hotkey: M)

A unit ordered to Smoke will use what means it has to lay a smoke screen. Click on the area you want to lay the smoke and click. A gray crosshair will appear on the map at the point selected, disappearing when the smoke round is delivered.

Almost every squad, gun, and vehicle in SA2NDWAVE has some ability to lay smoke. Smoke will obscure or block line of sight but weapons can still be fired into and through smoke screens. The range at which different weapons systems can target smoke orders varies but in most cases tank guns, anti-tank guns, mortars, and infantry guns may lay smoke to any part of the map they have line of sight to. Infantry squads may throw smoke grenades to a limit of 30 meters in any direction. Smoke orders brings up a gray targeting roundel for firing smoke. If a unit has smoke ability the Smoke command on the orders menu will be available. Some vehicles have smoke dischargers and/or smoke mortars as secondary weapons systems, which work in the same way as smoke rounds.



The graphic that appears on the ground where the Smoke order was issued.

#### 3.3.1.3.5 Fire (hotkey: , [comma])

Your soldiers will fire more accurately on their own initiative when under Defend orders. If you want to redirect their fire to a specific target, or change their orders from Ambush or Defend to fire at a target farther away, issue them Fire orders. This order will bring up an orange-colored line, which changes color as it is moved around the map to show line of sight obstructions.

To place the Fire order click on an enemy unit, or area you wish to plot fire into. This will place an orange crosshair on the targeted area. If there is no enemy target visible, your soldiers will engage in Searching Fire. This type of fire has a greatly reduced chance of hitting and damaging an enemy target, but suppresses the enemy in the area; suppression is a very powerful tool in SA2NDWAVE, as it can reveal enemy units and suppress them before they begin firing on your units.

Be certain that the unit firing can effectively engage the target. For example, a U.S. Sniper engaging a German Panzer IV is likely to come out on the losing end, unless he has a Bazooka equipped. While it's unlikely a Sniper will have such a weapon handy, other units may, so be sure to check the Squad Monitor when in doubt to see who has an effective weapon.



The graphic that appears on the ground where the Fire order was issued.

#### 3.3.1.3.6 Deploy (hotkey: . [period])

Before the start of a battle a Deploy order can be issued to your units, which will allow you to move them to a new location. A dark blue line will appear, anchored on the selected unit. Point the cursor to where you want to re-deploy the unit and click on that location. The unit will automatically move instantly to the point you selected, as long as it is within the blue grid. Continue moving units in this manner as much as you'd like—there's no time limit while deploying, unless set by a multiplayer game—until you're satisfied with the setup.

Deploy orders are not a valid order after the Start Button has been engaged.

### 3.3.2 Facing

Changing the facing of units to ready them for an impending threat can be very important. When you select the Defend, Ambush, or Hide orders, the color-coded arc will appear centered on the cursor. Move the line in the direction you want the unit to face and click. The unit will then rotate its facing to that direction.

Units using any of the other orders will be facing in the direction specified; a different facing cannot be specified for units using Assault, March, Caution, Smoke, Fire, or Deploy orders; the soldiers simply cannot, for example, move in one direction and face another. Vehicles also cannot move one direction and face another, but will rotate their turrets and/or the entire vehicle to engage spotted enemy units.

### 3.3.3 Line of Sight and Range

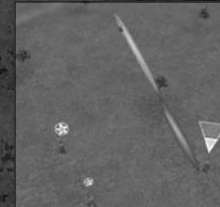
As mentioned above, the color of the line connecting the cursor to the firing unit indicates Line of Sight (LOS). LOS is determined for each soldier individually; this means one soldier in a squad may have a clear Line of Sight to a target, while another soldier in the same squad has an obstructed or blocked Line of Sight. Terrain and the stance of the individual soldier (as well as their target) all affect the spotting and firing capabilities of each soldier. The following chart defines the line colors and their meaning.



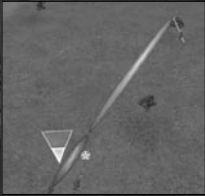
The LOS of this tank is blocked by the treeline. The dark green (clear LOS) line stops at the treeline, where it turns black (completely blocked LOS).



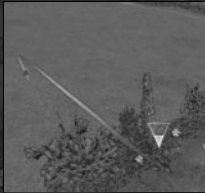
The LOS of this soldier is blocked by smoke. Note that fire is still possible through smoke, but is not as effective as with a clear line of sight. The color of this soldier's LOS line changes dramatically as the blocking smoke is not a solid object; it blocks view in stages. His clear LOS line becomes partially blocked (light green), half-way blocked (yellow), mostly blocked (orange), and finally, completely blocked. The soldier may fire at any target as long as the line is not black; as his LOS becomes more and more restricted, his fire effectiveness diminishes significantly.



This soldier's LOS is almost fully blocked by a higher elevation between himself and the target.



This soldier's LOS is partially blocked by intervening terrain; he may fire, but at reduced effectiveness.



This soldier's LOS is free of intervening terrain features (they are actually in the treeline, so it does not block their view), and has a clear field of fire.

When issuing a Fire order, the line that is anchored to the firing unit will change color as indicated above, depending on the soldier's Line of Sight and the range of their weapon.

Note: Some terrain features, like high ground, are not as obvious at first glance as potential Line of Sight blockers. An orange dot will appear at the end of the green line to signify the point on the high ground that is blocking your unit's Line of Sight.

Mortars and artillery are indirect fire weapons. Their crews do not have to see the target to fire at it. For these weapons, the color-coded line is orange.

## 3.3.4 Battlefield Controls

### 3.3.4.1 Keyboard Controls

**W** or **Up Arrow**: Move Forward

**S** or **Down Arrow**: Move Backward

**A** or **Left Arrow**: Turn Left

**D** or **Right Arrow**: Turn Right

**E** or **Home**: Strafe Right

**Q** or **End**: Strafe Left

**R** or **Page Up**: Increase Altitude

**F** or **Page Down**: Decrease Altitude

**Arrow Keys**: Move in the specified direction.

**Shift + Camera Key**: Move faster

**Control + Camera Key**: Move slower

**[** Selects the previous unit.

**\** Selects the next unit.

**]** Selects the next individual within a multiple-man unit.

**+** Raise gamma levels (makes the screen lighter).

**-** Lower gamma levels (makes the screen darker).

### Toggles

**P** Pauses Game

**]** Third person view shifts to the next soldier in the selected squad.

**[** Third person view shifts to the next squad.

**J** Toggles jump map On / Off

**O** Toggles the orders menu On / Off

**U** Removes/displays the game's soldier monitor, allowing a much wider view of the map.

**I** Removes/displays the Tactical Artificial Intelligence (TAI) display.

**,** Tree toggle eliminates tree render within 75 meters of the camera.

**Alt-Tab** Minimizes the game and goes to the Windows desktop.

**NOTE:** If the camera view locks in one position, click the mouse wheel (or click anywhere on the jump map) to free it up.

### 3.3.4.2 Mouse Commands

**Mouse wheel:** Moves camera up and down.

**Mouse wheel held down while scrolling:** Moves camera forward and backward.

**Right click on Jump Map:** Rotates the Jump Map 90 degrees clockwise.

**Click and hold the right mouse button while moving the mouse** to swivel the camera and change the camera's axis.

### Selecting Units

To select a unit, left click on any of the members of the unit (or on the vehicle). This will select the entire unit and bring up the Orders Menu. You may also select the unit by clicking on its icon in the Unit Monitor display in the lower left corner.



To view the unit's leader in a third-person close-up view, double click on the selected squad.

You may select multiple units by clicking on the map and holding down the button while moving the mouse. This creates a box that will, when the mouse button is released, select all units that are fully or partially inside the box.

### Camera Movement

You may direct the camera's movement with the mouse by moving it in the corresponding direction that you wish the camera to move: up for forward, back for reverse, and so forth.

Likewise, you may rotate the camera's angle by right clicking and holding the button down, and moving the mouse in the direction you wish to rotate the camera. When finished, release the right mouse button.

### 3.3.4.3 End Game Commands

**ESC** Calls the Surrender Box in game.

**Alt + F4** Ends application.

### 3.3.5 Support And Miscellaneous Controls

When the scenario allows support from Artillery, Air Strikes or Naval Gun Fire, these support assets can be selected using the buttons in the Support Monitor near the bottom of the screen. When a support asset is selected, the cursor is changed to a targeting crosshair. Click on the point that you would like the support mission to be called in on, and a crosshair will remain on the ground selected. The amount of time in between the moment you click and the moment the first shells land is determined in the Options Menu.

There are a limited number of fire missions for Artillery, Naval Gun Fire, or Air Strikes. Once they are used, they are not available for the rest of that battle.



#### 3.3.5.1 Air Strikes

Air Strikes consist of a pair of planes making two passes over the location. The type of plane is determined by the scenario data for each side. The planes come from a randomly determined direction, strafing and/or dropping bombs in the target area. A green light indicates that there are Air Strikes available; a red light indicates none are available or they've been depleted.



#### 3.3.5.2 Artillery

Artillery barrages consist of four gun tubes, all firing at once. The support battery fires 20 rounds per fire mission. The number of fire missions the user will get is dependent on the scenario. Artillery barrages cover large areas and are not accurate. Care must be used so you do not call in artillery that would impact in an area near your own troops. A green light indicates that there are Air Strikes available; a red light indicates none are available or they've been depleted.



#### 3.3.5.3 Naval Guns

Naval barrages consist of four gun tubes, all firing at once. The naval battery fires 10 rounds per fire mission. The number of fire missions the user will get is dependent on the scenario. Naval barrages cover large areas and are not accurate. Care must be used so you do not call in naval artillery that would impact in an area near your own troops. A green light indicates that there are Air Strikes available; a red light indicates none are available or they've been depleted.

### 3.3.6 Command And Morale

Command and control of your troops in the field is one of the most important issues you will face in SA2NDWAVE. There are generally two levels of command—Officer and NCO (Non-Commissioned Officer). Each type has a Command Radius, which is an area “presence” that they project that can have a significant impact on the men under their command. The higher the Leadership attribute of the Officer or NCO, the larger their command radius. This radius can be displayed on the battlefield by pressing the Space Bar. Pressing the space bar a second time will remove the command circles from the map.

The Officer level is at the top, leading Headquarters sections and vehicles. These leaders have wider area of control than an NCO and have a greater effect on the morale of their men. Losing an Officer will have more of an impact on your men's Morale than any other soldier.

Non-Commissioned Officers lead squads, guns, and vehicles. A typical squad will have a Squad Leader (usually a Sergeant), an Assistant Squad Leader (usually a Corporal), and eight other men. The Squad Leader and Assistant Squad Leader are the backbone of your command structure in the field. If you split a squad up these two men will act as leaders for each half squad, providing moral boosts and making the men more aggressive when in the face of the enemy. When these leaders are wounded or killed the squad suffers for the leadership loss and may become less responsive to commands.

When in Deploy mode and during battle, it is often useful to view a leader's Command Radius by zooming out from the map to make sure they are positioned to provide the most leadership coverage to your soldiers. If a unit is not inside the circle you should try and tighten up your front so that all units are in command circles. If a unit is within his leader's Command Radius, he benefits in many ways.

During battle a soldier's morale may go up and down, depending on his side's fortunes (having their leaders become casualties, capturing victory locations) and direct action affecting them (enemy fire and losing men from their unit). As these events occur, a soldier's mental health may deteriorate to the point that they become useless to their fellow soldiers; they may even surrender to the enemy. When your men start to rout, move a Headquarters Section so it's Command Radius envelops the panicky men, which will revive their fighting spirit and possibly bring them back into the battle.

### 3.3.7 Ending A Battle

#### 3.3.7.1 Surrender

**NOTE:** It is not recommended to surrender in a Battle, Operation, or Campaign unless you feel your position is hopeless and you do not wish to continue.



The Surrender button offers the player a chance to end the battle being played. A pop up window will then appear to confirm your surrender. When you surrender the game ends and all squads, guns, and vehicles you have surrender to the enemy, effectively becoming losses. You will also lose the map you are playing on in a campaign or operation. Surrendering in a single Battle will automatically give your opponent a major victory. You may also surrender by pressing the Escape (Esc) button on your keyboard.

#### 3.3.7.2 Time Expiring

If the time limit for the scenario is reached (if specified in the Scenario Selection screen), then the battle will end immediately and victory levels determined.

#### 3.3.7.3 Breaking/Destroying the Enemy

If one side's units are all Broken or destroyed (wounded, incapacitated, or KIA), then the battle will end immediately and victory levels determined. If one side destroys another's strength in the field then the remaining side is assumed to capture all victory locations.

### 3.3.8 Time Display

If a time limit was chosen in the Scenario Selection screen, a timer is displayed in the Support Monitor and counts the elapsed time in minutes and seconds towards the end of the scenario.

When the timer expires the battle is over and victory is determined (see 3.3.7.2, Time Expiring). If playing an Operation or Campaign, the time settings can be reset at the beginning of the next engagement in the Scenario Selection screen.

### 3.3.9 Terrain

No battle can be fought without the surrounding terrain dictating the tactics. SA2NDWAVE simulates the hedgerows and bocage of northwestern France where tactics often devolved into small-unit slugfests. Terrain is very important to the battlefield commander in this game; using it to your advantage may be the difference between winning and losing the game.



#### 3.3.9.1 Hedgerows

The Normandy countryside is famous for its hedgerows. Called "Bocage" in the French language, hedgerows are dense growths of trees and scrub brush that have formed on top of small mounds of earth over the centuries. Many of these hedgerows date back to the time of William the Conqueror. To this day, they

can provide excellent protection from enemy fire and very good cover. Some are so large and thick that it is impossible for tanks to bust through them.



#### 3.3.9.2 Buildings

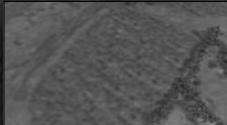
Buildings come in a number of shapes and sizes, but have one commonality: they provide excellent cover, protection, and hiding spots for your soldiers. When one of your soldiers enters a building, the interior will be automatically revealed. However, buildings are subject to damage from high explosives (grenades,

tank cannons, field guns, artillery, etc.) and soldiers inside can be potentially wounded or killed from such an attack. If the building suffers enough hits, it can fall down around your soldier's ears, guaranteeing time in the hospital at best, or a toe tag at worst.



#### 3.3.9.3 Woods

There are many small forests and wooded patches in Normandy. Most are fairly tame areas and do not have dense undergrowth. They provide good cover and tanks will not try to enter them.



#### 3.3.9.4 Crops

Crops such as wheat, barley, and forage grass are grown across Normandy. These fields do offer good cover for soldiers who are crawling through it, but not for standing/walking/running soldiers.



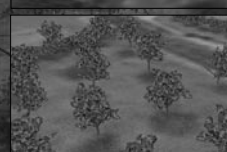
#### 3.3.9.5 Garden Walls, Sand Bags, and Fences

These sturdy stone and brick walls offer good cover and protection for men crouched or prone behind them. Vehicles also gain a "hull down" advantage when behind these features, which lessens the chance the vehicle will be hit by hostile fire.



#### 3.3.9.6 Trenches and Foxholes

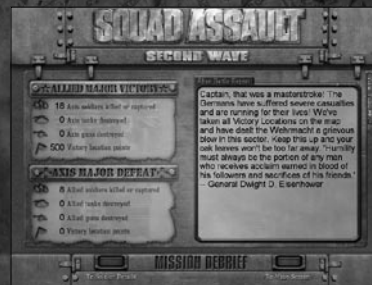
Trenches and foxholes are a by-product of battle, and many of them dotted the landscape of wartime Normandy. These features give good cover and protection for the troops inside.



#### 3.3.9.7 Orchards

Normandy is also known for its apple orchards and hard cider making. Many soldiers from both sides had more than one headache from drinking too much of this strong elixir. Intoxicating effects notwithstanding, orchard trees provide intermittent cover for soldiers inside such a grove or from having it between them and the enemy.

## 3.4 THE DEBRIEF SCREEN



On the left side of the Debrief Screen are two Victory Graphics, giving an overview of each side's casualties (the total number of dead men and destroyed guns and vehicles) and Victory Location Points owned. The top of each graphic will display which side won and lost. If you are playing an Operation or Campaign, it will display instead which side is winning or losing.

An After Battle Report will give you a brief message that summarizes the battle you've just fought.

You can either exit back to the Main Screen by clicking To Main Screen, or view details about each one of the soldiers from the battle, both enemy and friendly, by clicking To Soldier Details.

If battle ends because the time expired, each side totals the points for units destroyed and each victory location (worth between 200 - 400 points depending on its importance) on the map. The side with the greater number of points wins.



### 3.4.1 Soldier Details

The Soldier Detail Screen shows the statistics for each soldier from both sides' Order of Battle. To review a given unit's troops, select a unit icon from the Select Group to View window. The soldiers from that unit will appear in the middle display.

**NOTE:** The opposing side's units may be viewed only in single player mode.

### 3.4.1.1 Select Group to View

Click on a unit icon to view the soldiers belonging to that unit. To view the opposing side's soldiers, click on the appropriate Nationality icon.

### 3.4.1.2 Soldier Details (Middle Display)

Specific information for each soldier in the unit will appear, detailing their physical status, confirmed kills, and medals awarded (if any).

**Soldier ID and Rank** The soldier's last name and rank. Also, their personal weapon is displayed underneath their name.

### 3.4.1.3 Physical Status

Seven attributes measure the overall well-being of the soldiers in SA2NDWAVE (Health, Strength, Morale, Training, Leadership, Mentality, and Expertise). With the exception of Health, each category is represented by a colored bar that shows the status of that ability.

As fortunes of war and the skills of your men go, a good performance will go a long way to increasing their attributes. The indicator for Morale, Training, Leadership, Mentality, or Expertise can raise, remain the same, or fall during a battle, depending on how well things went.



(bottom half blue) The attribute was raised during the last battle.



(bottom half green) The attribute remained the same during the last battle.



(bottom quarter red) The attribute fell during the last battle.

**Health** The soldier's wound status. A single red bar is a light wound. Soldiers with light wounds may be able to stay with their squad during a multi-battle operation or campaign. A double red bar represents a serious wound. Seriously wounded soldiers are removed from play. Dead soldiers are, of course, removed from play.

**Strength** The higher a soldier's Strength, the less fatigued they become when carrying heavy loads

**Morale** Indicates the willingness of a soldier to fight. Soldiers with higher Morale are more willing to face danger and take risks. A white flag in this category indicates the soldier has surrendered, and will not be taking part in any further Operations or Campaigns (if applicable).

**Training** Affecting a wide range of events, from how accurate the soldier is with his weapon to how well he uses cover when under Ambush orders, Training is one of the most important attributes. As a general rule, the higher the training level the better the soldier will perform in the field.

**Leadership** Gives the soldier the ability to lead other soldiers in battle. A soldier with a high Leadership value can extend his influence out to a large distance to prop up the morale of soldiers under fire, and improve the accuracy of soldiers when firing their weapons. This also makes the soldier much more valuable; when one is wounded or dies the units inside his Command Radius can suffer a morale loss.

**Mentality** Determines the soldier's coolness under fire. The higher their Mentality, the lower the chance of the soldier going berserk or panicking, or refusing to follow orders. A high Mentality is an absolute necessity for a soldier to remain steady under fire.

**Expertise** Rates how well a soldier is at using his personal weapon in combat.

### 3.4.1.4 Confirmed Kills

The number of enemies a soldier is personally responsible for eliminating is displayed here. This is a cumulative total, reflecting the soldier's total kills if you are playing through an Operation or Campaign. The number of enemy kills garnered by your side helps determine the number and type of Medals that can be awarded to your men; it can also help you 'reward' the best soldiers in your company.

### 3.4.1.5 Medals/Medals Selection

Medals are the military awards given to a soldier for valorous service while facing the enemy. If your soldiers fight well, a number of medals will appear in this display to distribute as you see fit. Click the left or right arrows to cycle through the medal types; the number immediately available for awarding to your men is shown at the bottom of the medal's description.

To award a medal, first display the medal in the Medals Selection window. Then, select a soldier to award it to by clicking on the appropriate Unit Icon and then on the individual soldier's Medals display.

If wounded in battle, the soldier will automatically receive an award (Purple Hearts for American soldiers, Wound Badges for German soldiers).

## 3.4.2 Exiting The Battle

From the Soldier Details screen, click Back to return to the Debrief screen. If another battle awaits (i.e., you're playing an Operation or Campaign), you can select Return to Debrief (takes the user back to the Debrief Screen so you may advance to play another scenario), or exit the game.

## 3.4.3 Winning Operations And Campaigns

Operations and Campaigns continue until the pre-determined ending (the last battle) is reached. If an individual Operation or Campaign battle ends because of time expiring, then each side totals the points for units destroyed and each victory location on each map held at the end of that battle. The side with the greater number of points wins the battle.

Each victory location is worth between 200 - 400 points depending on its importance in the scenario. The campaign or operation is won depending on the course of the battles won or lost during the operation or campaign. The last battles' victory level determines the level of victory for that operation or campaign.

## 3.5 UNIT SUMMARIES

The fighting on the Western Front in Europe was conducted by hundreds of thousands of men in many different types of units. Each unit had a unique organization and could use a wide array of weapons and vehicles.

### 3.5.1 Infantry

There are several major types of infantry units in SA2NDWAVE. Each has its own purpose in the game and should be used according to the information provided under each type.

#### 3.5.1.1 Regular Infantry

Infantry squads and teams are the backbone of SA2NDWAVE. For the most part, they are armed with rifles and grenades but each squad usually has an automatic weapon or two as well. German squads have light machine guns; American squads have Browning Automatic Rifles. The leaders of infantry squads are usually armed with sub-machine guns like the Thompson or MP40.

#### 3.5.1.2 Engineers

Engineers are essentially heavily armed Regular Infantry with extra automatic weapons, flamethrowers, and demolition charges. They hit hard and defend well; protect them for the most critical part of your assaults or place them in the most vulnerable portion of your defenses.

#### 3.5.1.3 Snipers

Snipers are single man units that have scoped rifles for long range shooting. They are very accurate and are good for slowing an advance or suppressing the enemy at long range. Place them in a position with good cover and a wide field of fire.

#### 3.5.1.4 Recon Teams

Recon units are heavily armed teams of five to six men that are trained for quick and dirty action. They are too expensive to be used as regular infantry but fight well. Use them to locate enemy positions, then move them to safety while your other units engage. Don't place them in the line unless absolutely necessary.

#### 3.5.1.5 Anti Tank Infantry

Anti-Tank Infantry are armed with light anti-tank weaponry (for example, the U.S. bazooka, or German Panzerschreck). These teams consist of two or three men and are effective against tanks, vehicles, and dug in infantry. To increase their killing power, maneuver them so they can get a clear shot at an enemy vehicle's flank or, better yet, rear.

#### 3.5.1.6 Basic Infantry Tactics

During the World War II the ratio between infantry and tanks was hundreds to one. Because infantry is the principal component of the battle, it is vital that you use them properly. Infantry are extremely vulnerable to virtually every other unit when in the open. They should always be kept under some kind of cover: buildings, trenches, forest, or smoke if necessary. When facing armor, infantry should assume Ambush positions and attack from the side or rear.

### 3.5.1.7 Secondary Weapons

Most soldiers carry supplemental and backup weapons for their primary weapons. These include pistols, grenades, demolition charges, and smoke grenades. The number of these weapons available for each man varies from squad to squad and can be viewed on the Soldier Details screen.

### 3.5.2 Mortars

Mortars, despite being known as "the poor man's artillery," are the bane of modern warfare having killed more men than any other combat weapon. They are designed to throw a small to medium sized projectiles a short distance. They fire with a high trajectory and are therefore considered indirect fire.

#### 3.5.2.1 Mortar Tactics

The best tactic for mortars is to wait until you have identified several enemy targets, especially ones in close proximity to one another. Use them to soften up the target(s) before moving in an infantry assault. They can be very effective against infantry in the open and they always add a large amount of suppression to the target area, but are ineffective against tanks and other armored vehicles.

As you will note in Tutorial 2 (Mortars), these weapons can be used to great effect against unprotected enemy units.

### 3.5.3 Machine Guns

Machine guns are automatic fire weapons that are designed to rapidly decimate an attacking force. There are several models represented in SA2NDWAVE, categorized as either Light or Heavy. Light machine guns are bipod-mounted and are easily transported by a single man. Heavy machine guns are tripod-mounted and are very burdensome for a crew to carry. On the screen, you will see one poor Joe carry the whole load on his back but in reality the load is spread out across the crew.

#### 3.5.3.1 Machine Gun Tactics

Machine guns are best used with long fields of fire to deny the enemy a quick line of advance. Keep the crew well hidden. Machine guns are excellent at suppressing enemy troops. Attacking an unsuppressed machine gun position head on is tantamount to suicide; try to outflank it or suppress it before attempting an assault.

### 3.5.4 Flamethrowers

One of the most effective (and hellish) weapons ever invented by modern man for close-quarter fighting, the Flamethrower combines combustible liquid with a propellant and ignites the stream upon leaving the nozzle.

#### 3.5.4.1 Flamethrower Tactics

Flamethrowers have a very short range, usually 30-40 meters, so your men must get very close to use them against the enemy. They are very effective against enemy infantry (especially by suppressing them), against bunkers, and dug in troops. They can also be used against vehicles of all types with good results.

### 3.5.5 Anti Tank Guns

Anti Tank guns are medium-to-large caliber weapons crewed by three to five men that are designed to engage tanks and other armored vehicles.

#### 3.5.5.1 Anti Tank Gun Tactics

Place your anti tank guns in areas with long fields of fire to cover likely advance paths of enemy armor. Do not fire them at enemy infantry (unless absolutely necessary), as this will alert them to the gun's position. It's always best to lay in wait for an armored vehicle before announcing the presence of an anti-tank gun.

#### 3.5.5.2 Gun Crews

When a gun is damaged or destroyed the gun crew is removed from play. This is done as a play balance mechanism so that gun crews do not become cheap infantry units for reconnaissance of enemy positions. Gun crews were highly trained individuals and only used as infantry fodder in the most desperate of circumstances. If their gun is knocked out and the crew survives, they can continue in further Operations or Campaigns.

### 3.5.6 Vehicles

If infantry is the right arm of the field of battle, Vehicles are their armored gauntlet. They are usually powerful weapons platforms but tend to attract the most enemy fire. SA2NDWAVE contains a wide variety of American and German vehicles.

#### 3.5.6.1 Halftracks and Armored Cars (Light Vehicles)

Both sides have a variety of halftrack and armored cars that are excellent fire support platforms for infantry units. The armored cars are also very fast and make excellent reconnaissance units.

#### 3.5.6.2 Light Vehicle Tactics

There are three main tactics for these types of units:

Halftracks armed with guns and machineguns should be used as fire support for infantry units. Keep them slightly back of the front line and use them to reduce enemy strong points.

Halftracks armed with mortars should be kept well behind the lines and targeted at the same enemy strong points and gun positions.

Armored cars should be used to find enemy units. They are lightly armed and armored for the most part and should not be used as tanks. They are also very fast so use them to find the enemy and raid his rear area support units.

#### 3.5.6.3 Tanks

Tanks were developed during World War I as a way to break the deadlock of trench warfare on the Western Front. They are tracked vehicles that usually carry a main armament of a large caliber cannon and a secondary armament of one or more machine guns. Heavy metal plates make them impervious to most small arms fire.

#### 3.5.6.3.1 Assault Guns and Tank Destroyers

During World War II most nations found that it was more cost effective to develop turretless armored vehicles instead of regular tanks to give fire support to infantry units. This resulted in Assault Guns that had the armor protection of tanks but had a main armament that was mounted on the hull or superstructure of the vehicle. This type of mount made the weapon platform easy to produce and therefore were less expensive. Tank destroyers were developed along the lines of assault guns in the German Army and as lightly armored fast gun platforms that look more like tanks in the American Army.

#### 3.5.6.3.2 Basic Armor Tactics

Tanks began the war in a very advantaged position. Most infantry units had no good defense against massed armor attacks and fell prey to the onslaughts that were known as Blitzkrieg Warfare. As the war progressed infantry and their supporting anti tank assets grew in capability to limit the effectiveness of tanks. Weapons like the German Panzerfaust and U.S. bazooka gave infantry the ability to engage tanks at short range. By 1944 the age of Blitzkrieg had passed and the era of combined arms warfare had emerged. Tanks had to rely on infantry and artillery to penetrate defensive positions. Infantry had to rely on artillery and tanks to operate efficiently on the battlefield, and artillery needed infantry and tanks for survival. These axioms of warfare still hold true today.

It is unwise to use your tanks in a blitzkrieg fashion. You should keep tanks well supported by infantry to guard them against other infantry with Panzerfausts and bazookas. They are still very effective in ranged fire on enemy positions, but the close-in nature of the Normandy hedgerow country makes this very difficult. Enemy anti tank guns should also be guarded against as well.

Assault guns are effective anti tank weapons as are tank destroyers, and are effective against infantry and guns as well. American tank destroyers are fast and should be moved quickly from firing position to new firing position rather than going toe-to-toe with enemy armor. Some assault guns/tank destroyers are open topped, which makes them vulnerable to grenades and small arms fire.

### 3.5.7 American Vehicle, Gun, and Weapon Descriptions

There were many vehicles and guns the Allies used in the Battle of Normandy. This section describes the most prominent armored vehicles and weapons employed in June of 1944.

#### 3.5.7.1 Allied Weapons



**M1 Garand Semiautomatic Rifle**

Caliber: .30 (.30-06) Effective Range: 440 yards  
Magazine: 8 round clip

The M1 Garand was such a versatile weapon that it continued through the Korean War and into the early years of Vietnam. Sporting a construction that could easily take rough punishment, the weapon was popular with the soldiers that used them.



**Browning Automatic Rifle (BAR)**

Caliber: .30 (7.62mm) Effective Range: 600 yards  
Magazine: 20 round box

While a holdover from the First World War, the BAR's robustness made it a welcome addition to the standard nine-man squad. Able to deliver 550 rounds per minute, the support power of this weapon made it a deadly adversary.





#### Lee-Enfield No 4 Mk I Rifle

Caliber: .303 British      Effective Range: 550 yards  
Magazine: 10 round box

This rifle was one of the first (full production) rifles to sport aperture style rear sights. Replacing the venerable Pattern 14, this rifle entered service in 1941 and served the British and Canadians throughout the war.



#### The Sten Gun

Caliber: 9mm Parabellum      Effective Range: 30 yards  
Magazine: 32 round box

Cheap to build and simple to mass-produce, the Sten Gun had a distinctive side-loading magazine that helped a wielding infantryman stay closer to the ground. However, it was prone to jamming.



#### The Thompson Submachine Gun

Caliber: .45 ACP      Effective Range: 55yds  
Magazine: 20/30 round box

Immortalized in the violent gangster-police clashes of the 1920's, the Thompson proved to be so effective that it was adopted during that same decade by the U.S. Coast Guard. The Army took it as their official submachine gun, but with a shorter stock and stick ammo magazine (instead of the 50-round drum).



#### Bren .303 Light Machine Gun

Caliber: .792mm      Effective Range: 600 yards  
Magazine: 30 round box/100 round drum

The Bren had a reputation for accuracy and reliability; this gas-cooled weapon could be easily stripped and reassembled as well.

### 3.5.7.2 Allied Vehicles



#### The M4 Sherman Medium Tank

Armament: 75mm Gun, MG      Armor (max): 85mm      Crew: 5

The M4 was a joint design venture between Chrysler and the US Army, and it saw action in all theatres of war. A reliable platform, dozens of variants were made and it made up nearly 65 percent of all US tank production during World War II.



#### The Churchill Mk VII

Armament: 75mm Gun, 7.62mm MG  
Armor (max): 102mm      Crew: 5

The Mk VII was the final version of the Churchill infantry tank series, and saw action in France, Italy, the Low Countries, and Germany before the end of the war. Churchill himself had said, "This tank carrying my name has more drawbacks than me"



#### The M10 Wolverine Tank Destroyer

Armament (std.) 76mm Gun, MG      Armor (max): 37mm      Crew: 5

With thinner armor than the standard Sherman, the Wolverine was nimbler and had a higher-velocity weapon. It served well in the tank destroyer role, but wouldn't stand up for long toe-to-toe with heavier German armor.



#### M8 Greyhound Light Armored Car

Armament: 37mm Gun, MG      Armor (max): 19mm      Crew: 6

The nickname "Greyhound" came from the British, who so named it due to its high speed. The M8 was usually deployed with Jeeps in an over-watch role to support other more maneuverable recon forces and to provide a modicum of fire support if necessary. The M8 was never intended to be a combat vehicle with great staying power on the battlefield, but instead was a vast improvement over the M3 White Armored Car, previously the staple recon platform.



#### Archer Tank Destroyer

Armament: 76.2mm Gun, MG      Armor (max): 60mm      Crew: 4

The Archer was created to fill the need for a heavy tank destroyer in the British Army. As a result, a 17-pounder antitank gun was married to a Valentine chassis, but the platform had its problems. With an open top and a Valentine's slow speed, its use was limited but still saw use from 1944 to 1945.



#### Comet Cruiser Tank

Armament: 77mm Gun, 7.62mm MG  
Armor (max): 102mm      Crew: 5

A more pragmatic use of the 17-pounder in an armored vehicle, the Comet was one of the best British tanks in World War II. Its gun could take on heavy German armor but its armor, while thick, lacked the sloped protection that so many other armored vehicles were sporting at the time. Nevertheless, the Comet saw action late in the war, and many saw service across the world well into the 1970's.

### 3.5.8 German Vehicle, Gun, and Weapon Descriptions

German equipment was virtually second to none to their Allied counterparts' almost to the end of the war. However, lack of supply and the numbers to hold their assigned sectors weakened the qualitative power the Germans could employ against the Allies. As the war went on, American materiel strength became more on par with that of the Germans. However, few American vehicles could match the power of a Panther or Tiger one-on-one.

#### 3.5.8.1 German Weapons



##### Mauser

Caliber: 7.92mm      Maximum Range: 2000m  
Magazine: 5-round clip

The 98k was a short version of the 98, used in World War I. The 'k' version, for 'krutz' (or 'short') became the standard infantry rifle for regular German infantry during World War II. It was capable of firing explosive or armor piercing grenades with the attachment of a shot cup at the end of the barrel.



##### MP40

Caliber: .45 ACP      Effective Range: 55yds  
Magazine: 32-round magazine

Incorrectly known by Allied forces as "the Schmeisser" (it was designed by Heinrich Vollmer, not Hugo

Schmeisser), the MP40 was a fully automatic weapon composed of stamped parts that made it easy to manufacture, and was very effective in close combat. Just over 900,000 were made from 1939-1945.



##### Sturmgewehr 44

Caliber: 7.92mm      Effective Range: 55yds  
Magazine: 30-round magazine

Originally named the MP43, this weapon's development was stopped by Hitler. Not deterred, the weapon's developers simply renamed it and thusly

built the world's first assault rifle. Its light recoil and penetration power made an infantryman much more dangerous in combat. It was capable of firing either as a fully automatic weapon, or in single-shot mode.



##### MG42

Caliber: 7.92mm      Effective Range: 55yds  
Magazine: Continuous belt feed

With a rate of fire of 1,200 rounds per minute, this weapon made a very distinctive noise similar to fabric tearing making it a fearsome weapon to face. Over 400,000 were produced during the war.



##### Panzerfaust

Caliber: n/a      Effective Range: 30, 60, or 100m  
Magazine: Single shot anti-tank weapon

One of the best anti-tank weapons ever built, the Panzerfaust was a single-shot weapon that was fired

and the tube discarded. The model number of the weapon referred to its range; a model 30, for example, had a maximum range of 30 meters.



##### Luger

Caliber: 9mm/7.65mm      Effective Range: 55yds  
Magazine: 8-round magazine

This pistol was used throughout the German Army until 1938, when it was officially replaced with the Walther P38, but it remained a common sidearm for machinegun crews and officers throughout the war.

#### 3.5.8.2 German Vehicles



##### Panzerkampfwagen IV Series (G, H models)

Armament: 75mm Gun, 7.92mm MG  
Armor (max): 50mm      Crew: 5

The Panzerkampfwagen IV models G and H were some of the best-designed medium tanks of the war. The G model (including the early-model G, the F2) was the first Panzer IV armed with a 75mm KwK 40 L/43 main gun; close to 1,700 of these were built, with about 400 of them using the newer 75mm KwK 40/L48 main gun. The H series was the ninth iteration of the Panzer IV, and was produced from April of 1943 until July of 1944, when the series switched to the J models. The H model used the same 75mm KwK 40/L48 main gun that the later G models used. All told, it was the most-produced model of the IV series, turning out over 3,700 total vehicles for all fronts of the war. On June 6, 1944, most Panzer IV's in Normandy were model H's.



##### Panzerkampfwagen V Series/Panther (A, D, G models)

Armament: 75mm Gun, 3x7.62mm MG  
Armor (max): 110mm      Crew: 5

The Panther series' existence was a direct result of German armed forces in Russia meeting the previously unknown T-34. Taking into consideration design characteristics from the successful Soviet medium tank, the Panther incorporated sloped armor (the first German tank to do so), wide tracks, and a powerful 75mm KwK 42 L/70 main gun. It made its debut at Kursk in the summer of 1943 and suffered early on from severe mechanical difficulties that were eventually fleshed out. The A model was the most-used version in Normandy, being one of the first relatively bug-free models and a formidable weapon in its own right.



#### Panzer VI/Tiger I (B, E models)

Armament: 88mm Gun, 7.92mm MG  
Armor (max): 100mm Crew: 5

Perhaps the most famous heavy tank of the war, the massive Tiger I was armed with a powerful 88mm KwK 36 L/56 gun (developed from the 88mm Flak gun) that could engage and destroy targets at extremely long range. It carried with it an aura of invincibility that was reinforced by the fact that only at close range or with a lucky side/rear shot could a Tiger be taken down. On August 8th, 1944, SS-Unterscharfuhrer Willi Fey's Tiger I took out 14 of 15 Sherman tanks advancing on his position in Normandy, showing the awesome potential of this tank's power.



#### SDKfz 250/251 Halftracks (Various models)

Armament: Varies with type  
Armor: Varies Crew: 2 or more, plus passengers

This series of German halftracks had a large number of variants, testimony to show how flexible this particular vehicular platform was. The 250 served not only to carry infantry, but also as a weapons platform (37mm PaK anti-tank guns, heavy machine guns, and even the 75mm KwK 37 L/24), and a support vehicle (Air Support, Telephone, Ammunition Carrier, and Observation Post were but a few of the many variants used in the field). Most of the 251 models outfitted SS-Panzergrenadier outfits, and were as flexible as their 250-model cousins.



#### SDKfz 234 Armored Car/Puma (Models 234/1, /2, and /3)

Armament: 20mm Gun Armor: Varies Crew: 4

Initially intended to serve in the desert, the Puma's eight wheels make it easy to identify. The various models were continually up-gunned; the 234/1 had a 20mm gun, the 234/2 a 50mm gun, and the 234/3 had a short-barreled 75mm gun in a fixed/open top turret (the /1 and /2 were turreted and could rotate 360 degrees).



#### StuG III G

Armament: 75/105mm Gun, 7.92mm MG  
Armor (max): 80mm Crew: 5

The StuG III G had over 7,000 units built (the other seven models combined to total just under about 1,500 units). While technically an assault gun, this particular weapon was more of a tank destroyer, employing the 75mm StuK 40 and 75mm StuK L/48 guns.

## 4.0 MULTIPLAYER



SA2NDWAVE features Internet play, allowing two human opponents to engage in the shell-ruined fields and beaches of northwestern France. Multiplayer games operate by having one player (the Host) start a game, with the second player joining. To play a multiplayer game, the computer that hosts the game and the joining computer must both have a copy of the game CD. There is one type of connection for multiplayer in SA2NDWAVE, Internet TCP. Using this type of connection, you can play the game with another player over a LAN (Local Area Network), or over the Internet.

### 4.1 USING A TCP/IP CONNECTION

The first step in the multiplayer game is to have both players connect to their ISPs. The next step is that both players should select Multi Player from the Main Screen.

#### 4.1.1 Hosting a TCP/IP Connection

If you want to host a TCP/IP game, click on the blue button until it reads Host. Your IP address appears on the bottom of the screen. Enter a Host name in the Please Enter Your Identification window. Inform the second player of your IP address so that they can join. When finished, click Next.

The game will then advance to the Connection Screen. The terminal window will display the identification of the player joining your game. You may then chat in the terminal window to select a scenario and decide what options to play with. The hosting player then left clicks on Next and the game advances to the Scenario Selection Screen, where the host will select a scenario. It will then load on both machines and the game advances to the Task Force Screen. When you have made your unit selections, select Next.

Note: Both players must select Next for the scenario to begin.

#### 4.1.2 Joining a TCP/IP Connection

If you want to join a TCP/IP game, click Join. Enter your player identification in the Please Enter Your Identification window and the Host's IP in the Enter IP Address window, and then click Next. The game will then advance to the Connection Screen. You will see the Identification of the host and you may chat with them to pick a scenario and game options. Messages will appear showing host's progress as they select the scenario agreed upon. When the scenario is selected, the game will advance to the Task Force Screen. When you have made your unit selections, select Next.

Note: Both players must select Next for the scenario to begin.

### 4.1.3 Hosting a Local Area Network (LAN) Connection

If you want to host a LAN game, click on the blue button until it reads Host. Your IP address appears on the bottom of the screen. Enter a Host name in the Please Enter Your Identification window. After electing to host a game click Next. The game will then advance to the Connection Screen, where the terminal window will display the identification of the player joining your game. You may then chat in the terminal window and select a scenario and options to play with. The hosting player then clicks on Next and the host's game advances to the Scenario Selection Screen, where the host will select a scenario. It will then load on both machines and the game advances to the Task Force Screen. When you have made your unit selections, select Next.

Note: Both players must select Next for the scenario to begin.

### 4.1.4 Joining a Local Area Network (LAN) Connection

If you want to join a LAN game, click on the blue button until it reads Join. You need to enter your player identification in the Please Enter Your Identification window, and the Host's IP in the Enter IP Address window, and then click Next. The game will then advance to the Connection Screen. You will see the Identification of the host and you may chat with them to pick a scenario and game options. Messages will appear showing the host's progress as they select the scenario agreed upon. When the scenario is selected, the game will advance to the Task Force Screen. When you have made your unit selections, select Next.

## 4.2 COMMUNICATING WITH YOUR OPPONENT

You can send messages to other players at any time. To do so, press ENTER. Type in your message and then press ENTER again to send it. The message appears on the other player's screen.

## 5.0 SCENARIO EDITOR



### 5.1 EDITOR OVERVIEW

Begin in the lower right corner of the screen, where the Editor's basic management functions are found.

New Click to bring up a list of the available maps in the window to the left.

SA2NDWAVE comes with a built-in Scenario Editor that allows you the flexibility to create your own scenarios, or edit existing ones. It is possible to create just about any kind of engagement in Normandy with a few clicks of your mouse.

Saved Click to bring up a list of scenarios from the Saved Games folder to load into the editor. This list will appear in the window to the left.

Load Click to bring up a list of scenarios in the Battles folder to load into the editor. This list will appear in the window to the left.

Save Click to save your work.

Exit Exit the Editor and return to the Main Menu.

Once you have loaded the map, it will appear in the large display on the right side of the monitor. To make it something worth fighting over, you must assign Victory Locations and Ownership.

### 5.1.1 Map Victory Locations and Control Zones



In the top right hand corner of the screen is a row of buttons (Place Victory Locations and Place Control Zones) used to assign value to important locations on your map. It also lets you define Control Zones, which are the areas that each side's soldiers start the scenario in.

#### 5.1.1.1 Victory Locations

Victory locations are the important spots on the map that are the ultimate objectives for either side, denoting important tactical objectives that must be seized or held (or both) to win. The relative importance of Victory Locations is divided into two categories: Major, which are worth 200 points to the controlling side, and Minor, which are worth 100 points.



[Each side (American and Axis) has their own Victory Location flags. American Victory Locations are only objectives for the American side, Neutral Victory Locations are objectives for both sides, and German Victory Locations are only objectives for the German side.



Immediately following Place Victory Locations are the six buttons that allow you to set objectives. From left to right they are: American Major Victory Location (VL),

American Minor VL, German Major VL, German Minor VL, Neutral Major VL, and Neutral Minor VL. Select one of the Victory Location types and click anywhere on the map to place it. The only restriction is that only one type may be placed in any one area.

#### 5.1.1.2 Map Ownership



Immediately following Place Control Zones are three buttons, representing the starting area for either side's forces. These areas are defined by painting them on the map. To do this, select one of the

Map Ownership buttons, place the mouse cursor on the map, and click and hold while moving the mouse. The cursor will paint the tiles (squares) underneath it the appropriate color (blue for

American, red for German, and gray for Neutral). The only restriction is that there must be at least one neutral tile between the American and German side's ownership. Units brought into the scenario are confined to set up inside their sides' Map Ownership areas.

Once the Victory Locations and Map Ownership areas have been defined, it's time to select the soldiers that will slog it out on your new map.

## 5.1.2 Units



In the upper center of the screen is a small window entitled Select a Force. Select either Allies or Axis, and the corresponding units will appear in the windows to the left. These three windows are Available Units, Task Force Pool, and Task Force.



Three buttons above the Available Units window further govern the unit types that appear in these windows: Infantry, Vehicles, and Guns. Select the unit type you'd like to examine and the corresponding units will appear in the Available Units window.

### 5.1.2.1 Available Units



This window displays all the units (their Unit Name and corresponding Command Point cost) that are active in the database. From here, you may define which units will be available to the player of that side in your scenario. Select a unit by clicking on them, and they'll appear in the Task Force Pool window.

**NOTE:** Command Point costs (Cost) are only incurred at the beginning of the scenario, when the player purchases extra units.

There are no points to spend while building a scenario; only the determination of available forces.

You can scroll the entire list of units by clicking on the Up and Down arrows on the left side of the window.

### 5.1.2.2 Task Force Pool



This window lists all units that are selected in the Available Units window. The units in this window can be purchased in the Task Force screen when the scenario is started. This is also the pool from which you select the starting forces of a side. To do so, click on the unit you'd like to include and it will be moved to the Task Force window. The point value is automatically totaled in the small window in the lower right of the Task Force Pool window. Units may be removed from the Task Force Pool by right clicking on them. Notice that it is

not necessary to have units in the Task Force Pool, but they must first be moved here before they can be added to the Available Units window.

You can scroll the entire list of units by pressing the Up and Down arrows on the left side of the window.

### 5.1.2.3 Available Units



This window lists of all units that will begin the scenario (they will not have to be purchased in the Task Force screen). Units may be removed from this list and placed in the Task Force Pool window by right clicking on them. The point values of the forces in this window are automatically totaled in the small window in the lower right of the Available Units window. You can view the entire list of units by pressing the up and down arrows on the right side of the window. It is not a necessity to have units in the Available Units of a scenario.

### 5.1.2.4 Purchase Points



Purchase Points are used on the Task Force screen to purchase units (specified in the Task Force Pool window) before a scenario is loaded. It is important to add Purchase Points if the player is to be allowed to purchase units on the Task Force screen. You must toggle to American and German with the Side Selector to assign points for each side. Click inside the box and type in the number of points you'd like to assign to that side, and press Enter or click outside the box to accept.

Your soldiers are set to go toe-to-toe with each other over the Victory Locations that you've specified, but there's no support for them in the field. You can certainly design your scenario to have no Fire Support, but adding it to your game will add new strategic dimensions that can be called on in a pinch to help your men out.

## 5.1.3 Fire Support



Click on the appropriate side under Select a Force to assign Fire Support to either side as desired. To do so, click on the 'plus' symbol to add a fire support mission of a given type, or press the 'minus' symbol to remove it (if already set). You can choose one Artillery fire mission, one Naval Gun fire mission, and one Air Support mission per scenario.

### 5.1.3.1 Artillery

Artillery has four types: Medium Mortar (80mm German/81mm Allied), Heavy Mortar (120mm/4.2 inch), Medium Artillery (105mm for either side), and Heavy Artillery (150mm/155mm). Only one type of these four per side may be selected in a scenario. It will be available at the beginning of the scenario as preparatory bombardment, or can be used later as a called in fire mission.

### 5.1.3.2 Naval

Naval Gunfire missions represent supporting fire from cruisers and destroyers off the coast of Normandy. If selected, the one Naval Fire mission will be available at the beginning of the scenario as preparatory bombardment, or can be used later as a called in fire mission.

### 5.1.3.3 Air Support

Air Support has four types: Fighter, Fighter Bomber, Attack Bomber, and Bomber. Only one type

of these four may be selected per side in a scenario. It will be available at the beginning of the scenario as a preparatory bombing mission, or can be used later as a called in bombing mission.

### 5.1.4 Supply Level



Supply Level affects the amount of ammo for a side. Click on the appropriate side under Select a Force to assign supply settings to all units for that side. The default is Full (ammunition is set to historical maximum levels); Normal sets the ammunition level to a historic depleted level for all of a side's units (representing the tricky supply state of either side). Low supply further depletes all of a side's units in the scenario to a dangerously small amount.

### 5.1.5 Weather



Weather can affect Line of Sight in a scenario.

**Sunshine** No hindrance to Line of Sight; units may spot out to as far as they can see.

**Rain** Minimal hindrance to Line of Sight; spotting distance is shortened by a small amount.

**Light Fog** Hindrance is greater for Line of Sight; spotting distance is about halved.

**Fog** Hindrance to line of sight is at maximum; units are not spotted until virtually in close quarters.

### 5.1.6 Briefing Text

The Briefing text button calls up a text edit screen that allows you to enter a briefing for both sides of the battle. Click on the appropriate side under Select a Force and click the Briefing button to enter a briefing for that side.

**NOTE:** There is a limit of 1,024 characters for each side's briefing.

### 5.1.7 Saving a Scenario

Do not save the scenario until you have followed the steps below.

#### 5.1.7.1 Save

Click Save in the lower right hand corner of the screen. A pop up window will appear.

#### 5.1.7.2 Scenario Name

Type in the name you wish the scenario to be known as and then click Finish.

#### 5.1.7.3 Exit

Press Exit to go back to the SA2NDWAVE Main Screen.

## 6.0 DESIGNING OPERATIONS AND CAMPAIGNS

**NOTE:** Before attempting to design an Operation or Campaign, try designing your own scenarios by reading through section 5.0, Scenario Editor. Once you have the hang of designing your own individual battles, you'll be ready to learn how to link them together.

By Wilf Thorne

### Step 1: Designing Your Operation/Campaign

Your initial design should start with an outline. Write down on a pad of paper the name of the maps you want to use and what order they will appear in. The outline is also a good place to record which maps will have Fire Support, what the Supply Level will be, and the Weather outlook. I also record the number of Purchase Points that will be available for each side.

In designing your Campaign you must first make individual Battles. The Battles will then be linked together to make an Operation. Several Operations will then be linked together to make your Campaign. There is no set number of Battles or Operations that can be in your Campaign.

We will now create a Campaign called "Allied Assault Campaign." In this Campaign you will be taking the side of the Allies. In making this we will have two Operations that we will link together to make our Campaign. Our first Operation will be called "Off The Beach". Our second Operation will be called "Inland Assault." Design each Operation of the Campaign separately. These two Operations will be used to make our Campaign. The last step will be to link the Operations together to make our Campaign.

#### First Operation

Operation Folder Name: Off the Beach

First Battle: 0.bt

Second Battle: 1.bt

Final Battle: 2.bt

#### Second Operation:

Operation Folder Name: Inland Assault

First Battle: 0.bt

Second Battle: 1.bt

Third Battle: 2.bt

Fourth Battle: 3.bt

**NOTE:** If you are only making an Operation you will need to add an .op file in the games Operation Folder. See Step 3 on how to do this.

## Step 2: Building Your Operation/Campaign Maps

Numbers 1-10 below correspond to the numbers in Figure 1. To load a map, select New. All the maps in the game will appear in the window to the left of the New button.



Figure 1

- Control:** Color in Allied, Neutral, and German territory.
- Victory Locations:** Place Victory Locations for the Allies and Germans. Also place Neutral Locations, if any.
- Task Force Pool:** Select your Task Force Pool for both the Allies and Germans. You must select at least 1 unit for each side or you will not be able to save the map. If you want maps without new troops available, you will have to edit these out in the .btl file (see the Notes section below for more detail on editing this file). After the battle, any troops left in the Task Force Pool and Available Units windows will carry over to the next map.
- Available Units:** Select the troops for your starting units. You do not have to select any units and this step can be left blank.
- Fire Support:** Select any Fire Support—Artillery, Naval, and/or Air—for the Americans and Germans.
- Supply:** Select the Supply Level for the Americans and Germans.
- Purchase Points:** Give each side points for purchasing troops. If you did not select any troops in the Available Units box, you MUST put a number here.
- Weather:** Select the desired Weather for your map.

- Briefing Text:** Write the briefing for this map/battle. There is a limit of 1024 characters for each side's brief.
- Save Game:** Save the map and name it. In this case I'm calling this map "1".

After you have finished making all your individual battles it's a good idea to double-check what you have done before moving on. If we're making a Campaign with two Operations named "Allied Assault Campaign," it would look like this:

### Operation Folder Name: Off the Beach

First Battle: 0.btl  
Second Battle: 1.btl  
Final Battle: 2.btl

### Operation Folder Name: Inland Assault

First Battle: 0.btl  
Second Battle: 1.btl  
Third Battle: 2.btl  
Fourth Battle: 3.btl

In the Operation Folder of the game you will need to create two new Operation Folders. The first folder is Off The Beach and the second folder is Inland Assault. Place these two new folders here: C:\Squad Assault\Eric Young's Squad Assault\Game\Operations. Place the battles you made in the Scenario Editor in the corresponding Operation folder.

## Step 3: Linking Your Battles with the .OP File

This is where you link the battles in the Operation. Victories, defeats, and draws will determine which map is played next. First you must create an .op file. The easiest way to do this is to copy an existing .op file from the game. The file is a text file and looks like Figure 2. Once you copy the file you can make changes to match your Operation. Name the file Off The Beach.op. Place this file in the in the same place your Operation folder is located: C:\Squad Assault\Eric Young's Squad Assault\Game\Operations

Figure 2

```
# Operation file Off The Beach
#
```

```
[BATTLES]
NUMBER_OF_BATTLES = 3

[BATTLE_0]
FILENAME = "game\Operations\Off The Beach\0.btl"
LINK_0 = 1
LINK_1 = 1
LINK_2 = 1
LINK_3 = 1
LINK_4 = 1
```

```
[BATTLE_1]
FILENAME = "game\\Operations\\Off The Beach\\1.btl"
LINK_0 = 2
LINK_1 = 2
LINK_2 = 2
LINK_3 = 2
LINK_4 = 2
```

```
[BATTLE_2]
FILENAME = "game\\Operations\\Off The Beach\\2.btl"
[END_OF_FILE]
```

The second Operation would look like Figure 3.

### Figure 3

```
# Operation file Inland Assault
#
[BATTLES]
NUMBER_OF_BATTLES = 4

[BATTLE_0]
FILENAME = "game\\Operations\\Inland Assault\\0.btl"
LINK_0 = 1
LINK_1 = 1
LINK_2 = 1
LINK_3 = 1
LINK_4 = 1

[BATTLE_1]
FILENAME = "game\\Operations\\Inland Assault\\1.btl"
LINK_0 = 2
LINK_1 = 2
LINK_2 = 2
LINK_3 = 2
LINK_4 = 2

[BATTLE_2]
FILENAME = "game\\Operations\\Inland Assault\\1.btl"
LINK_0 = 3
LINK_1 = 3
LINK_2 = 3
LINK_3 = 3
LINK_4 = 3

[BATTLE_3]
FILENAME = "game\\Operations\\Inland Assault\\2.btl"
[END_OF_FILE]
```

Before we move on lets look at the .op file. You will notice a LINK\_0, LINK\_1, LINK\_2, etc. This has

to do with the victory conditions and what map is played next. In designing your Operation you determine what battle is played next depending on the victory conditions.

Victory conditions look like the outline in Figure 4:

### Figure 4

```
German Major Victory = Link_0
German Minor Victory = Link_1
Draw = Link_2
American Minor Victory = Link_3
American Major Victory = Link_4
```

The example we have used in Figure 2 shows all victory conditions leading to the next map. In designing your Operation you can have your victory condition determine if you move to the next map, play the same map over again, or have to retreat back a map. Figure 5 gives you an idea on how this would look. If you are the Allies and playing Battle 0 and you win a Minor Victory you would proceed to map 2. If you and the Germans come to a Draw you would then proceed to map 1.

### Figure 5

```
# Operation file Off The Beach
#
[BATTLES]
NUMBER_OF_BATTLES = 3

[BATTLE_0]
FILENAME = "game\\Operations\\Off The Beach\\0.btl"
LINK_0 = 0
LINK_1 = 0
LINK_2 = 1
LINK_3 = 2
LINK_4 = 2

[BATTLE_1]
FILENAME = "game\\Operations\\Off The Beach\\1.btl"
LINK_0 = 0
LINK_1 = 1
LINK_2 = 1
LINK_3 = 2
LINK_4 = 2

[BATTLE_2]
FILENAME = "game\\Operations\\Off The Beach\\2.btl"
[END_OF_FILE]
```

Note: If you are only making an Operation this would be the last step.

In making your operation you have total control over which map is played next. You can make your operation straightforward or branch off into different directions, depending on the outcome of your battles.



## Step 4: Linking Your Operations With the .CPN File

Now that you have made your two Operations it is time to link these Operations together to make your Campaign. To do this you must create a .cpn file. The easiest way to create a .cpn file is to copy and paste one from the game. Figure 6 is an example I took from the game and made it to fit my Campaign. When finished making the .cpn file place it here: C:\Squad Assault\Eric Young's Squad Assault\Game\Campaigns

### Figure 6

```
# Campaign file "Allied Assault Campaign"
#

[OPERATIONS]
NUMBER_OF_OPERATIONS = 2
OPERATION_0 = "game\Operations\Off The Beach.op"
OPERATION_1 = "game\Operations\Inland Assault.op"

[END_OF_FILE]
```

### Notes:

After you have finished all the maps for your operation/campaign and have linked them into an operation/campaign, if minor changes need to be made I find it easier to edit the .btl file instead of loading the map back into the Scenario Editor. To edit the .btl file, open it in Notepad or WordPad.

In building your operation/campaign, you must have at least one unit selected for each side before you can save each individual map in the Scenario Editor. If you want maps where no new additional troops are available you must edit these out in the .btl file. In other words, you start the operation/campaign with a core force and either do not want any more troops throughout the operation/campaign, or you want reinforcements to arrive on certain maps.

Figure 7 below shows the troops selected for each side. The Allies are 0 and the Germans are 1. In looking at this example neither side has any troops under NUM\_GROUPS. This would be the units you placed in the Task Force window in the Scenario Editor. They both have 1 squad under NUM\_RESERVE. This is the Task Force Pool. We had to place at least one squad in Group or Reserve (Task Force or Task Force Pool) of each side in order to save the map in the Scenario Editor. The numbers 1000 and 12000 correspond to the Index# in the US\_Groups and GE\_Groups.

### Figure 7

```
[GROUPS_0]
NUM_GROUPS = 0
NUM_RESERVE = 1
RESERVE_ID_0 = 1000

[GROUPS_1]
NUM_GROUPS = 0
NUM_RESERVE = 1
RESERVE_ID_0 = 12000
```

In our campaign, if we did not want any new troops to show up on this map you can edit these two groups as in Figure 8. The only troops this map will have available then is what was left under the Task Force and Task Force Pool of the previous battle.

### Figure 8

```
[GROUPS_0]
NUM_GROUPS = 0
NUM_RESERVE = 0

[GROUPS_1]
NUM_GROUPS = 0
NUM_RESERVE = 0
```

To remove troops from this map all you have to do is delete the RESERVE\_ID or the GROUP\_ID. This example did not have a GROUP\_ID to edit. Next put 0 for NUM\_GROUPS and NUM\_RESERVE. Save and close the file. Be careful not to leave any extra spaces or lines between groups and letters or numbers.

Using this method it is pretty easy to edit the Fire Support (SUPPORT\_LIST Figure 9), Miscellaneous (PURCHASE\_POINTS, SUPPLY\_STATUS, and WEATHER Figure 10), and the Briefing text. Be careful in the briefing text not to leave any extra spaces. An extra space will truncate your briefing text at the point of the extra space. Remember the Allies are 0 and the Germans are 1.

### Figure 9

```
[SUPPORT_LIST_0]
SUPPORT_0 = 1
SUPPORT_1 = 0
SUPPORT_2 = 1
SUPPORT_3 = 0
SUPPORT_4 = 1
SUPPORT_5 = 0
SUPPORT_6 = 0
SUPPORT_7 = 3
SUPPORT_8 = 0

[SUPPORT_LIST_1]
SUPPORT_0 = 1
SUPPORT_1 = 0
SUPPORT_2 = 2
SUPPORT_3 = 0
SUPPORT_4 = 1
SUPPORT_5 = 0
SUPPORT_6 = 1
SUPPORT_7 = 0
SUPPORT_8 = 1
```

In Figure 9 SUPPORT\_0 through SUPPORT\_8 for both the Allies and Germans are in the same order as the Fire Support box in the Scenario Editor. Just place how many fire missions you want for

## 7.0 THE TUTORIALS

SA2NDWAVE contains three ready-made scenarios to show a new Company Commander how to select troops, issue orders, and most importantly, win the game – as well as many other helpful points. Remember, though, the Tutorial missions are not meant to be a replacement for the manual; instead, it is intended as a supplement and as a hands-on means to get familiar with the system. While most points will be covered in these Tutorial scenarios, please refer to the manual's Table of Contents if any questions arise during play.

### 7.0.1 Tutorial One: Recon

#### 7.0.1.1 SYNOPSIS

A small U.S. recon team is nosing its way close to an important river crossing. German strength in the area is unknown, but believed to be very light; therefore, no motorized equipment or heavy weapons are included in their small force. The Germans, aware of the approaching American juggernaut, send feelers of their own across the river to find out how close the vanguard is, and to delay any U.S. attempts to easily take the town on the west bank of the river.

#### 7.0.1.2 FORCES

##### 7.0.1.2.1 American

Initial recon of the area indicates a small village (Omere-St. Marone) on the banks of the river that has been long abandoned, mainly due to shelling and a more or less constant German presence in the weeks building up (it was noted in the last recon pass that a church in the center of the village took a direct hit from an artillery round). The Germans had vacated the town rather quickly, and we expected a lot more from them – elements of a Panzer division stiffened by Volksgrenadiers had initially held the town, and their retreat is a mystery. Your mission is to lead a small detachment of soldiers to sniff out where the Germans have gone and, if possible, bring the river and its crossroads under surveillance. Secondary to the mission is to determine German strength in the area and report back. Your troops should not get themselves involved in a bloody firefight, as a dead recon team is as useful on the battlefield as a blind eye.

One recon squad (5 men)  
One Scout (1 man)

##### 7.0.1.2.2 German

The village across the river had been held by elements of the 560th Volksgrenadier Division and Kampfgruppe Kempe, part of the once-powerful 21st Panzer Division. Now a shadow of its former self, the Kampfgruppe has limped back across the river, along with the Volksgrenadiers, due to lack of fuel and having only one operational tank. In the face of rapidly advancing American armor from what is believed to be the 3rd Armored Division, the command in this sector braced itself for a crushing blow. However, the Americans did not charge in with guns blazing. While our kameraden in the vicinity of the 3rd Armored prepare a powerful defense to tie them down, it is your duty to lead a small group of men across the river and determine if the Americans are bringing in significant strength. Any resistance should be neutralized, and observation positions acquired

within the town. We need this intelligence to know how long we have to reequip Kampfgruppe Kempe with the expected delivery of a dozen Tiger tanks; if the Americans are going to be here quickly, the Kampfgruppe will be unprepared and will have to retreat. The Volksgrenadiers are not up to the task of withstanding a full attack by the veteran Americans.

Five Wachtposten (Sentries)  
One Scharfschütze (Sniper) team (2 men)

#### 7.0.1.3 RUN-THROUGH

To start this scenario and follow in this tutorial, select Tutorial I – Recon from the Battles listing. Choose to play the Allied side. No extra units can be purchased in the Selection screen, so continue on to the scenario.

Note: The convention of “North,” “South,” “East,” and “West” as used in this run-through are meant to refer to the upper, lower, right, and left sides of the mini-map, respectively. While you can quickly flip the mini-map by 90 degrees by right-clicking on it, to avoid confusion with reference points leave the mini-map as is for the duration of this tutorial.

When loaded, you'll begin with a view from the American's corner of the battlefield in the lower right part of the map. The recon team has three soldiers in and two out of a two-story building. The scout is located just behind the two men outside the building.



From the mini-map in the upper corner of your screen, you'll note your current position (and your Allied-controlled Victory Location), and two Neutral Victory Locations that are unclaimed (the gray flag icons with a half Allied/half German marker on them). Further to the left, you'll note three German-controlled Victory Locations. Just from this casual glance you'll see that you have a deficit of Victory Locations when compared to the Germans. That makes the capture of the two gray flags of importance, although for your relatively small force this will be

difficult. The capture of the Neutral flag immediately to the north of you will be a simple task easily accomplished by your scout.

Currently, the recon team is selected; you can tell this by the yellow tint to their markers over their heads. Also, in the lower left portion of the screen, you can see there are two 'spaces' occupied by the two units you are commanding in this Tutorial. For our purposes in this scenario, it is only important to note that you can select a team by clicking on it in this display (double-clicking on it will center the camera's view on the unit). The scout unit is unselected and therefore has a blue tint to its marker.

Before selecting anything, press and hold the R key until the camera has risen as far as it will go. This will give you an impressive bird's-eye view of the battlefield. To move the camera around, click and hold the right mouse button and move the mouse in the direction you wish to view. You'll note immediately that there are two rather strange terrain features present: the blue grid near your troops and, off in the distance, an oddly shaped red grid.



These grid areas define the immediate area in which troops may be deployed. The computer sets up your forces as it sees fit, but this does not mean you're stuck with the AI's deployment. Instead, you may choose to move troops around within the confines of the grid area before the battle begins. Since we only have two teams present and a limited deployment area, this is not necessarily an important step in this Tutorial mission. However, since the game is timed and limited to fifteen minutes, saving a few valuable seconds here and there will pay

off in the end (or not saving them may cost you later). We can go ahead and move the scout unit closer to the Neutral flag immediately to the north of our deployment area.

To do so, press and hold the F key to lower the camera back to a height that you find comfortable. Select the scout by either clicking on him in the display or clicking on his icon in the lower-left corner (the scout is in the second 'space,' while the recon team is in the first). The scout's marker will immediately turn yellow, while the recon team's will change to blue. Finally, the Orders Menu will appear in the upper left corner of your screen.



We will be covering many of these orders in more detail later. For now, click on the 'Deploy' order. The Orders Menu will then vanish and a blue line will appear, starting at the scout's position and ending at your cursor. Find the northernmost portion of the deployment area, closest to that Neutral flag, and click once. If you need to, you can maneuver the camera by right clicking and holding just as you did a few moments before, even when an order is activated. Maneuver the camera as necessary and then find the spot you'd like to move the scout to.

When you've finished deploying the scout, that's not necessarily your cue to click the start button (the one with the Bugle icon on it in the lower center of your screen). You may issue more orders to your soldiers before the start of battle to get a head start. Speed is of the essence in this scenario, so we will do so now. Since the scout is already selected from its previous deployment, click on him again (or on his unit icon at the bottom of the screen) to bring up his Orders Menu once again. This time, select "Assault," and then click at the base of the Neutral flag to your north (which is highlighted in a gold box below). A three-arrow shape similar to a sergeant's chevrons will appear at the point you clicked, indicating the location of the orders for the current unit. The Assault order is normally only issued to make troops move as fast as possible from one point to another; it severely limits their ability to spot the enemy, but since the enemy is deploying at a relatively far-off distance and won't have a line of sight to this flag, the scout should be safe.

Now, we'll want to move the recon team to a spot that will give them an excellent field of view towards the Germans, and with luck, provide some cover in case they run into trouble. To scout out a suitable area, move the camera by either moving the mouse in the direction you want it to go in (up for straight ahead, back for reverse, left and right to scroll as appropriate), and change its angle by using the right-click-and-hold method. From your initial observation from on high at the beginning of this scenario, the hedgerow line that borders the east side of the field that the Germans are going to deploy in would make an ideal position, especially immediately opposite

the bombed-out church. Select the recon team in the lower left corner of the screen and select "Assault" when their Orders Menu appears. Move them to the approximate area indicated below (as highlighted by the gold box) by clicking on the hedgerow itself. Your men are now ready to move out.



Click the aforementioned Bugle icon button in the lower center part of your screen. Immediately above it the "Timer" window will start counting upwards from 0:00, indicating the game has officially begun. The game, however, is not going to run all the way to fifteen minutes without a pause unless you allow it to. If things get too hectic, or if this Tutorial specifies below, you may press P to stop the action. The message "Paused" appears in the center of your screen, stopping the timer, but you may still issue orders to your men.

For now, sit back and watch your men scramble to gain the ground you've already ordered them to move to. Take this time to practice more with the camera. While the mouse is a good tool for moving the camera, some may prefer the keyboard. We've already learned that the R key moves the camera up, while the F key moves it down. Press P to pause the game and refer to section 3.3.4, Battlefield Controls, to get the full list of all possible camera movement options. However, if you're comfortable just using the mouse, unpause the game and continue.

The small message box in the right portion of the screen will flash messages to you during the battle; it should already tell you that the battle has begun, and that both squads are moving as ordered. As the battle progresses, it will inform you of casualties, Victory Location captures and losses, and many other important facts. Refer to it as often as you feel necessary.

As your recon team gets closer to the hedgerow, they will discover Germans lurking in the field beyond. They may come under fire quickly, depending on where exactly on the hedgerow you've clicked, but don't worry – once your men reach their objective, they can defend themselves and return fire if fired upon. However, keep an eye on them and note when the Germans do finally make an appearance. They'll be easily spotted in the distance by their red tinted markers.



Click on the recon team when they've reached their objective to open their Orders menu. We want to set them to defend the area they're in, which will make them hit the dirt and that, along with the cover they're employing, will make them very difficult targets. The Germans, on the other hand, will be easy to spot in the open ground. Click "Defend," and you'll note that the cursor has a blue arc on it. This arc, when clicked on the ground, will signify how far out you wish your units to defend against the enemy. They will not move, but will instead fire on any

enemy that they can hit (depending on range and firepower; these infantrymen will not fire on a JagdPanther, for instance, that enters this arc since the only thing they'd accomplish is wasting their valuable ammunition and drawing unwanted attention to themselves). Move the blue arc until it is just past the Germans that the team has spotted and click there.



Meanwhile, the scout is probably getting antsy hearing the sounds of battle and being left to his own devices back at the Neutral flag. However, since he's gotten near it the flag has changed to be Allied, indicating that you now control that point. The scout can now be brought up to help support the recon team, as his BAR will come in handy. Move the camera to him (or double-click on his icon), click on him to bring up the Orders menu, and select Assault. Move the camera to the hedgerow immediately west of him, and click on it. He will scramble to move to the new position and should automatically start shooting at the Germans, if he has a clear line of sight.

Note that, if your men do not fire on the Germans but are getting hit themselves, that they may not be positioned properly in the hedgerow. SA2NDWAVE is unique in that a squad can be positioned so that only some of them have a line of sight to an enemy and therefore can fire on him; the ones that cannot see the enemy will not fire. If this happens, select the unit, select Assault from the Orders Menu, and click a little farther into the hedgerow; this should bring the men into a position that will allow them to all fire on the Germans.

Your recon team should come out on the positive end of the ensuing firefight; the only non-constant factor is the German sniping team, which usually appears in the southernmost part of the German deployment area. They'll usually hang back and try to pick off your men, and depending on their position in the hedgerow and the German's luck, may survive their attacks in relative safety. Remember that ammunition is not infinite for your side, and neither is it for the enemy. Once they run out of ammo (and there isn't a lot of it for their sniper), they'll probably head for the river and safety beyond. The five sentries should probably fall quickly, as the Germans will immediately freeze in place once your men make an appearance on the hedgerow; they're not stupid enough to charge your men nor are they enough to turn and run unless their morale breaks.

The Germans will likely be sneaky, however. Once your men make their presence known in the hedgerow, the Germans will cease to advance—but they will very likely capture the second Neutral flag that is closest to their positions. The sentries will deploy in a spread-out pattern which will virtually guarantee that there are at least one or two near the riverbank, just waiting for you to become enticed with those seemingly unprotected German Victory Locations and move your men out of their good cover. Since the mission would pretty much be over at this point if you were not willing to take risks, go ahead and do so just to see what happens. The best strategy to pursue is to move the men using the Caution order, which has them crawl on their bellies to their objective; needless to say, this is the safest form of movement but is not the fastest. Since this scenario is timed to end at fifteen minutes, likely these men will not make it to any German flag in time. Also, since a large body of men moving in the open makes a much better target than a smaller one or a single man, the scout has just been volunteered to probe the enemy's positions and see if they can

get a quick and dirty capture of an enemy Victory Location.

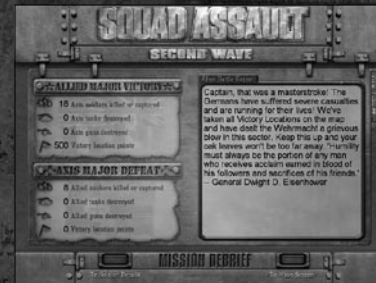
Sometimes you may not be in a position that is as good as the one outlined above – meaning you will have casualties and/or will have units refusing to obey your commands. Units that have taken too many casualties will take morale hits and will be much more difficult, if not impossible, to command. If their environment becomes simply too much for them to bear, they can easily go to a broken status and run for the rear. Also, a broken team can sometimes rally itself without outside help (although as you will note later, leader units will help tremendously in bringing broken units back into the fray), so you may be able to wait a few minutes to see if that squad that just lost its sergeant get the nerve again to move forward.

Click on the scout on the northern edge of the hedgerow (provided he's still alive and/or obeying orders), and select Assault. Click on the nearest German Victory Location and watch as he scrambles for the flag.



The scout will likely come under immediate fire by the Germans that didn't get killed in their initial approach. If possible, pause the game by pressing P and order the scout to ground by clicking on him and selecting Caution from the Orders Menu. Depending on his position, click somewhere that's a good compromise between getting to the nearest flag and giving him a clear field of fire to the Germans that have just interrupted his stroll. However, if the scout can see the Germans, select Fire instead from the Orders Menu and click on the offending German. The scout's

BAR should make short work of them. More than likely, however, the scout will break and run for the rear, as solo charges are made more for Hollywood movies than reality. Your men may have suffered some wounded and/or killed and have taken morale hits because of it. This will make them that much more difficult to order, especially to order them to move into the jaws of German fire. At this point you've hit a stalemate, which is perfectly acceptable given the parameters of the game and the troops that you have to work with. Wait for the timer to hit "15:00" and for the game to end. You will get the After Battle Report that should indicate a Minor Victory for your side (and a Minor Defeat for the Germans).



## 7.0.1.4 AFTERMATH

Congratulations! You've now learned enough to move on to a larger and more complicated scenario: Tutorial 2 – Mortars. However, you could try to go back and play this one as the Germans, and now that you know the best strategy for the American side, see if you can thwart their plans accordingly.

## 7.0.2 Tutorial Two: Mortars

### 7.0.2.1 SYNOPSIS

The small U.S. recon team bloodied the nose of the German scouts. Convinced that the U.S. teams were only a small force, the Germans ready an ad-hoc counterattack with a small force of Panzergrenadiers from Kampfgruppe Kempe. The Americans, meanwhile, realize that the German scouting efforts must mean they have an interest in returning to Omere-St. Marone, and have rushed the only available reinforcements that they can – mortars, along with a light sprinkling of supporting troops.

### 7.0.2.2 FORCES

#### 7.0.2.2.1 American

Your reconnaissance in force yesterday demonstrated that the Germans have a continued interest in this area, and rightly so – it would make a perfect bridgehead to counterattack the division lines between the 3rd Armored and the 10th Infantry. We're aware that the German Kampfgruppe in the area is waiting for reinforcements, but likely will try to move in with what they can spare to push out our lighter units. The tanks and main body of the 3rd Armored Division is held up to the rear, dealing with an unusually spirited German defense of a town that should have fallen two days ago, and cannot send anything your way save a handful of mortars and a few infantrymen. Use them well, as the intelligence officer has a gut feeling about this one.

Two 81mm mortar teams

Two 60mm mortar teams

One Company HQ team

17 points to spend on reinforcements

#### 7.0.2.2.2 German

The reconnaissance yesterday cost the lives of some good sentries, but that wasn't your fault – the Americans were too strong. Nevertheless, Kampfgruppe Kempe is under orders now to send every available man to meet this new threat and throw the Amis out of Omere-St. Marone. Unfortunately, "every available man" only means a few dozen Grenadiers, but this is better than nothing. If the Americans only have light forces defending the town, we should be able to take it back with little difficulty. This will pave the way for the refurbished Kampfgruppe to have their bridgehead and counterattack the 3rd Armored Division, currently held up by a well-timed defense. Take these men and do not fail.

One Wachtposten (Sentry)

One Scharfschütze (Sniper) team (2 men)

One Platoon Leader team

One Grenadier squad

One Grenadier squad (one-half normal size)

17 points to spend on reinforcements

### 7.0.2.3 RUN-THROUGH

To start this scenario and follow in this tutorial, select Tutorial II – Mortars from the Battles listing. Choose to play the Allied side. Unlike Tutorial I, you have seventeen points with which you may

spend as you wish. Your choices are somewhat limited, however; there's only one full Rifle Squad, two half-size Rifle Squads, one 81mm mortar, two .30 Browning machineguns, and one scout to select from. Each has their own intrinsic cost, making for a tough decision.

As with any scenario, you have the choice in the Selection screen of clicking on the enemy's icon to display what starting forces they have, as well as what the AI has to choose from for purchasing purposes. While this can be considered 'cheating,' it's a good way for a beginning player to get a feel for what their AI opponent will do. Go ahead and click on the German cross in this screen and look at their starting forces (listed above). From this, you can tell they'll come at you with lots of infantry, making your mortars rather valuable.

The best purchasing choices you can make are, invariably, up to you. Each unit has its own benefit, but the benefits of the other units not chosen are therefore lost. Chose a mortar, for instance, and you'll have good back-up for your already decent mortar force, but this will deny you more infantry in case the Germans break through. Everything's a trade off.

Remember that ammunition is a finite resource; when the mortar tubes are out, that's it, and if there's any surviving/unbroken Germans lurking out there, they'll start coming on when the barrage lets up. It may be wise to get that extra mortar, but in this case go ahead and ignore it. Four are plenty for our purposes.

What we could use, however, is a good infantry support weapon, something that will make the Germans keep their heads down. The Browning .30cal machinegun is a perfect weapon for this, but the team will not move very quickly. Click on the team to select it, leaving twelve more points to spend.

More infantry would be nice to cover the ground we need to defend and also to send to the north to capture the Neutral locations. Click on the Rifle half-squad twice to buy two (at six points each). This brings your points to zero, and you're ready to begin the scenario. Click Next to load it.

Note: The convention of "North," "South," "East," and "West" as used in this run-through are meant to refer to the upper, lower, right, and left sides of the mini-map, respectively. While you can quickly flip the mini-map by 90 degrees by right-clicking on it, to avoid confusion with reference points leave the mini-map as is for the duration of this tutorial.

When loaded, you'll begin with a view from the American's corner of the battlefield in the lower right part of the map. Press R to raise the camera view and get a bird's-eye view of the setup.



Note that this is the same map as from Tutorial I; this time, however, the Germans are expecting trouble and seasoned troops are on their way. They also have a larger grid area to deploy in, making for more possibilities to defend against.

The Germans start in control of four Victory Locations. The Allies have one, in their corner of the map, and three others are Neutral. These Neutral locations run in a more or less straight line north of the Allied starting area. The one immediately to your north will be the easiest to capture, while the next farthest one

may pose a problem; it's visible to the field that the Germans will appear in, so any movement in that direction will have to be done quickly. The furthest Neutral flag may not be captured at all by either side; for now, keep it at the back of your mind but don't plan on stretching yourself too thin to grab it. If the German attack melts away, this will provide you with the impetus to go after them more aggressively. For now, let's plan on containing the Germans.

Let's take a look at what we have to work with. From the start of this Tutorial, you can see that you have more troops than you had from the previous one – four mortars, an HQ team, and, now that you've purchased them, two Rifle half-squads and a .30cal machinegun team. Using the Deploy command, set one of the half Rifle squads to the farthest northern part of your deployment area. Put the .30cal MG team in the far northwest corner of your grid (just northwest of the house). Place the other Rifle half-squad just west of that same house. The mortars can stay where they are, unless they are placed immediately behind the house. Move them as you see fit to give them some room to fire.



Move the camera around the map to get a feel for where the Germans may come at you. In the above screenshot, note that there are two buildings with a commanding view of the field beyond; the hedgerow breaks just south of their viewing area, making them targets. The Germans will likely make a beeline for these buildings, so be prepared. The half squad that you set to the farthest northern point of your deployment grid will be the team to send rushing to these buildings. This is a tricky proposition; the Germans may cut them down, but with the proper use of your mortar teams, they won't even see them going.

Let's issue orders. The mortar teams have nothing to fire at, and they move incredibly slow, so leave them where they are. While they don't have a direct line of sight into the field, their weapon is indirect-firing, which means they may attack anyway. Their accuracy will be less than if they had a clear line of sight to the enemy, but remember: if you can see the enemy, they can see you too. Being out of sight of the Germans isn't necessarily a bad thing. At this point, you can order units as you have previously by clicking on them or their icon, but you may also select a unit and press the O key to bring up the Orders Menu.

Move your Rifle half-squad that's west of the house to the hedgerow line, roughly in the same area that the recon team fended off the German sentries from the last scenario. You could select the team as you did in the previous Tutorial, but this time click on the team and press Z. This is the hotkey for the Assault order. From the Z key, and going to the left on your keyboard, each key is slaved to a specific Order from the Orders Menu; pressing X will order a team to March, pressing C will give a Caution order, and so forth, each subsequent button tied to the order immediately below the last on the Orders Menu. Remember to click inside the hedgerow to maximize the number of men that will have a clear line of sight past it into the fields beyond.

Select the other half-squad and press Z to order them to Assault; click on the western room of the home immediately north of the second Neutral flag (see above). Then, select the .30cal team and send them to the same spot. This house is a good compromise between coverage and risk;



order. This will allow the men to attack an approaching enemy more effectively; the Defend order essentially engages targets at the farthest range possible, while Ambush orders tell soldiers to only fire when they "see the whites of their eyes."

The .30cal MG team can be moved along with this half-squad, to the same house. If they make it there, the position will be quite strong.

The Company HQ team is a wildcard; it's much too valuable to place in the frontline, since it consists of the highest-ranking soldier on your side of the battlefield. The HQ acts as a morale booster to all soldiers within their command radius; to view this radius, select the HQ and press and hold the Space Bar. A circle will appear indicating the maximum radius at which this leader unit can rally sagging morale. The higher the ranking soldier, the further out this circle will go. However, there is a down side: the higher-ranking the soldier, the more of a morale hit the men in his command circle will take if he's taken out. As mentioned, use these HQ's with care. For now, order them to move into the bombed-out church building where they can lay low and still influence most of the units around them, especially the ones that will be facing off against the Germans.

When you're finished looking at the battlefield and issuing orders, press the Bugle Icon button to begin play. Note that we did not change the time limits in this game, so the timer will immediately begin counting and end at fifteen minutes.



Your squads will immediately start running for their objectives. As the half-squad running for the hedgerow gets closer, they'll spot a large German force regrouping in the field beyond. This is a good indication of an imminent German attack, so pause the game. Your half squad may come under fire; if they haven't yet, then they will. Order this squad to use Caution movement and click on the hedgerow; they'll go to ground and make minimal targets of themselves when the game is resumed.

Now, let's look at the mortars. Unless you purchased another one, you'll have two 81mm mortars and two 60mm mortars. The 81mm's are best at shredding the enemy since they have a larger blast radius than their smaller 60mm cousin. However, don't discount the 60mm's entirely, as

they're good weapons in their own right. As you can see, the Germans are nicely lined up and virtually begging for a good mortaring. Let's oblige them.

Click on one of your 81mm mortars, select Fire, and click on the largest group (note that most likely you'll spot two groups at this point, one larger one just south of a smaller one) by highlighting one of their men, waiting for the downward-pointing red triangle to appear (indicating the man is indeed under your cursor), and click. A red circle with a crosshairs will appear in the middle of their group, and since you clicked directly on one of their members, this crosshairs will follow them as they move. If you click on just real estate, the mortars will fire at that area, but if the enemy moves out then the only thing they'll be hurting is dirt.

Select the other 81mm mortar and click on a soldier in the other spotted group. If none are spotted, click it on any soldier that you see that is farthest from the first mortar strike order (this maximizes your blast area). For now, leave the 60mm mortars alone to conserve their ammunition. Remember that the 81mm mortars will begin pounding the Germans and will not let up until you order them otherwise. If at any time you wish to stop them from firing, click on the unit and select Defend, then click on the ground in front of them. Their barrage will then end until you order another fire mission.



useless as its morale plummets. Never underestimate the accuracy of the AI; while you can adjust the lethality of weapons in this game in the Selection screen later, moving your men, even on their bellies, across open terrain into a German defense will generate more than your share of "We regret to inform you..." letters.



Unpause the game. The mortars will begin to make short work of the tightly packed Germans, but remember there are more of them out there. These two groups, however, will probably break and run for the rear very soon after coming under fire; morale can be severely hampered by effective artillery and/or mortar strikes. While you have effective light artillery, you don't have enough squads to mount a counterattack against the Germans; even if you've purchased a full Rifle squad, a few well-placed shots by the Germans and that formation will become

The Germans' main force, the Grenadier squads, will learn that discretion is the better part of valor and run like mad for the river. Continue to harass them with the 81mm mortars to encourage them on their way, and when they reach the river, cease firing. Likely at this point your 81mm's will be very low on ammo, or out altogether. We still have the 60mm's, though.

Use your half-squads to maneuver along the hedgerows to try and spot the German teams remaining. Most likely they'll throw up a few

smokescreens to deter you from doing exactly that, as the AI learns that your mortars are simply too much for it to bear and will try to hide their positions. The Germans that have not broken will probably remain in place, set to Defend and will take shots at you if you try to cross the no-man's land field for their objective flags. As mentioned, this kind of tactic didn't work for the Germans, so it probably won't work for you.

However, you can use smoke for yourself. Each mortar tube has five smoke rounds attached to it; even if your 81mm mortars are out of regular ammunition, they'll still have smoke that you can utilize. If you feel particularly bold, try laying down a smoke screen by selecting the mortar, then Smoke from the Orders Menu. Click in the area you'd like to see the smoke land, but keep in mind that the round will not land in that exact spot. Much like regular mortar fire, it will be inaccurate if there is no clear line of sight, which will be most of the time. However, the smoke round should land relatively close to where you select.

A smoke order for a mortar is different from a Fire order in that it will not keep lobbing smoke rounds until its supply is exhausted; it will fire one round exactly, and if you wish to fire more you'll have to re-select the unit and create another fire mission. Even with the best laid smoke, the screens will dissipate after a few minutes' time and, if you have men moving in the open then, the Germans will make short work of them. In this scenario, practice landing a few rounds of smoke and moving some men in behind it, just to see if you can take one of their objective flags. Remember, you can fire through smoke, but you won't be able to see the enemy. Only risk wasting your soldier's ammunition if you're reasonably sure that there is a target present.

The German's strength was in their grenadiers; now that they're halfway to the Ruhr, don't expect any more aggressive moves on their part.

#### 7.0.2.4 AFTERMATH

The remainder of this Tutorial is up to you; you may lay smoke screens and move your half-squads forward, wait for any current smoke to dissipate to see if you can find enemy soldiers and use the 60mm mortars on them, or lay low just in case the AI decides it can take you after all. Most likely, it will not. Since you've inflicted a large amount of casualties on them and have held your ground accordingly, you should come out with at least another Minor Victory – unless you get lucky and take some of their locations away. Also, as before, consider re-playing as the Germans.

### 7.0.3 Tutorial Three: Heavy

#### 7.0.3.1 SYNOPSIS

The desperate German attack on Omere-St. Marone is repulsed, although Allied casualties are not light. Instead of being discouraged, the Germans are convinced that just "one more push" is all it will take to gain the town and prepare as a springboard for their planned counterattack on the American 3rd Armored Division, still held up by mopping-up operations to the rear. The commander of this division has noted the importance of this small French hamlet, however, and has duly pressed the creation of a Combat Command out of his disorganized and tired units to send post haste to the river.

### 7.0.3.2 FORCES

#### 7.0.3.2.1 American

Your defense of Omere-St. Marone not only helped protect the flank of the 3rd Armored, but also denied the Germans some useful real estate. Good work, but the war's not over yet. Intelligence is convinced that the Germans are trying to use the area as a jumping-off point for a counterattack, else they'd not be trying so hard to hold on to such a relatively unimportant town. The 3rd Armored and VII Corps is aware of this also, but have little in the way of troops to spare at the moment; however, elements of the 2nd Infantry division are on their way and will soon be in the area to stop once and for all any German excursions onto our side of the river. While we wait for that, however, 3rd Armored has released a small command (Combat Command Kent, under Captain Lewis T. Kent), comprised of some infantry, at least one Sherman, and a field gun. The Germans will probably try one more time, as the Kampfgruppe over there has had plenty of time by now to reequip itself. Be prepared for light enemy armor and even more Grenadiers to come calling.

Two 81mm mortars  
One Company HQ  
One Heavy Rifle Squad  
One M4A1 Sherman 75  
One M1A1 Infantry Gun  
70 points to spend on reinforcements

#### 7.0.3.2.2 German

The attack yesterday was, unfortunately, a failure. The Americans managed to get reinforcements in there faster than we anticipated; on top of that, the defensive battle involving their 3rd Armored division is winding down which means they'll soon be coming for the river. This is our last chance to kick the Americans out of Omere-St. Marone, in preparation for a new Panzer Regiment that is reportedly on the way. The promised Tigers for Kampfgruppe Kempe have not materialized yet, and we're out of time. We've managed to scrape together an assault group from the personnel that Kempe can spare, including some of their brightest commanders. It will have to do; if this attack fails, we'll have to pull back.

One Sentry  
One Sniper team  
One Platoon Leader team  
One Grenadier squad  
One Sturmgranadier squad  
One SdKfz 231 (8-rad) 20mm armored car  
One 75mm Infantry Gun  
50 points to spend on reinforcements

### 7.0.3.3 RUN-THROUGH

To start this scenario and follow in this tutorial, select Tutorial III – Heavy from the Battles listing. Choose to play the Allied side. Unlike Tutorial II, you have 70 points with which you may spend as you wish. The Task Force Selection screen also sports many more units than have been previously available to you, including tanks and armored cars. Choose wisely, keeping in mind that the Germans will likely throw light armor in your direction. While you already start with a Sherman

tank, adding another may not be a bad idea (the M4A1 76 is good enough, although you may wish to have the M4 105 which costs five points more) to give your team more killing power. Another full Rifle squad will be beneficial, and rounding out the list with a .30cal MG and a Scout will help fill out your rosters. When you're done purchasing, click Next to load the scenario.



Instead of being back in the now-familiar corner of the map, you'll deploy just a little further north, and will have a larger area to deploy in. Turn the map so that your deployment area is at the bottom of the screen and the German's is at the top.

If you have two tanks, deploy one in the right-upper corner of your deployment area, immediately next to the house. Deploy the other to the left, in the small bulge of grid that points in between the southern house and the bombed-out church. The tank to the

north will move to the opening to its right and will have a clear field of fire into much of the fields that the Germans are deploying in. The tank to the south will be able to hold the hedgerow against any infantry attacks. Keep in mind, though, that the Germans can deploy infantry guns in this scenario and, while intended to use against infantry, some carry Armor Piercing (AP) rounds that can gut a Sherman with one shot. Be sure to keep both tanks in a position that is maximizing their firing arcs but minimizing their exposure; if enemy armor or an infantry gun is spotted, move the tank out of their sight and immediately engage it with mortar fire.

Your two 81mm mortars will provide some of your artillery strength, but the lion's share of it will be in the form of your M1A1 Infantry Gun. This powerful piece will, while inaccurate, be devastating if it makes a hit. It starts off in a treeline, but do not move it; this is a perfect location for it to deploy, keeping its crew under cover but still affording it a chance to let it be felt throughout the battlefield.

Place the rest of your men as you see fit, keeping in mind the Germans will have much more infantry this time around, and perhaps a light vehicle or two.



Order your infantry up to the hedgerow immediately, and order the tanks to take up flanking positions. The tank to the north may be ordered to turn around the blocking terrain by using waypoint commands. Click on the tank, select Assault, and then press and hold the SHIFT key. Click to the north of the tank, then to the west so it will be facing the enemy. When finished, release the SHIFT key. In this manner, waypoints may be selected for any or all of your troops; in fact, for the men moving up to the hedgerow, you can select them, order Assault, then press

and hold SHIFT while clicking immediately behind the hedgerow. While still holding SHIFT, click on Caution and then on the center of the hedgerow. The selected unit will now run flat out for the first (Assault) waypoint, then go to ground and crawl to the second waypoint (Caution).





Sherman. Also, the Grenadiers and Sturmgranadiers have Panzerfausts, which can take out Shermans without a sweat. Be sure not to over-expose your armor in the early stages of the game.



car). Most likely, however, that scout will be cut down before he reaches the first building. Laying a smoke screen would have helped him, but you'll need your precious smoke rounds later. If he makes it, great, but if not, you'll spot the enemy armored car very soon.



Even nearby hits will cause it damage, or at least concern the crew. Most likely the commander will remain unbuttoned so he can better direct the car's fire on your men; a lucky shot can knock

Almost immediately, German infantry will become visible. Resist the temptation to unleash your Infantry Gun and mortars on them until you have a clearer picture. The German's light armor, which you've probably deduced is the SdKfz 231 eight-wheeled armored car from the German's briefing, is likely going to be near the river with a small reserve while the remaining soldiers are in a rough line in front. The armored car's firepower should not be taken lightly; while only a 20mm gun, it still can wreak havoc on your men, and can disable an unwary

As more Germans become visible, your men will become equally visible and they'll start firing on you. Now's a good time to pause the game and set up some mortar fire; use the Infantry Gun sparingly, only on large targets that are very visible, or if you're lucky to spot it, the armored car. The mortar fire will decimate their ranks if properly positioned, but they have more where that came from. If you bought the scout unit, the best role for him is to move him quickly north to the buildings there, to spot the enemy in the fields (and to find the troublesome armored

As your men trade shots with the Grenadiers, the armored car will hang back and start having its presence be felt. This will probably cause you to draw your armor out in the open, which is what it is hoping you'll do; a few Panzerfausts later and you'll be regretting that decision. You'll be in something of a Catch-22 situation, where attacking means making your tanks vulnerable, but not attacking means your men will be chopped to bits. The infantry gun comes in handy here, and as soon as the enemy SdKfz 231 is spotted, start hitting it.

him out and send the rest of the crew into a panic. Meanwhile, by this point, some Grenadiers will start breaking for the rear as your mortar fire becomes too much for them to handle. Once they start running, conserve your ammunition; they'll likely hide on the other side of the river and may have a chance, albeit a small one, of rallying and appearing at the worst possible moment.



If the Germans are in retreat, they'll start popping smoke grenades. Take this as your cue to consider beginning to advance. Unlike the previous Tutorial scenarios, our goal is complete battlefield domination by capturing all of the enemy-held flags. There is no surer way to having a Major Victory than to capture all the necessary locations on a mapboard—we won't be happy with a draw or a Minor Victory in this battle. The Germans have to be kicked out of here once and for all.

As some Germans retreat, others will cover them and remain in place, as they had in previous scenarios; this is exactly what they did previously to make it too expensive for you to come out looking for what seemed to be a cheap location or two.

Most likely, the Shermans in your command will be taken out, unless you managed to keep them well hidden. As mentioned, hiding them is a good way for them to survive, but there's no point in purchasing them if they're not going to be used. If you're lucky to have a tank survive this confrontation, use them to move out and probe the enemy's positions. If no tanks are available, or they're immobilized, then you'll need those smoke rounds from the mortars to cover your infantry's advance. We'll assume the latter case.



Capturing Victory Locations can go a long way to improving morale; as you can see above, the majority of this 10-man squad is dead or incapacitated, but the remaining three are moving out as ordered. The retreat of the SdKfz 231 is likely the only reason why they decided to move out; one moment, it's there, then a well-placed smoke screen hides the advancing U.S. soldiers; as soon as that cloud dissipates, the armored car has zipped back across the river and out of sight. The AI uses your smoke screens as effectively as it uses its own; consider this same strategy to use against it.

If it seemed too easy up to this point, your advancing men will discover why the Germans beat such a hasty retreat: your mortar fire, plus the occasional round from your Infantry Gun, managed to kill most of them before they even started their assault. While you can view shell holes, you can't see the enemy's bodies until you're within sight of them. While the U.S. soldiers above have psychological states that are eroding, they still manage to move under command because of the ground they're gaining... and the bodies they're seeing.



Eventually, using smokescreens to cover their movements on your side of the river from any German eyes hiding on the other side, your men will capture most of the control points. Unfortunately, you won't be able to cover every square inch of the river, and surprises are bound to pop up. The most tempting strategy is to move out to grab the three German locations in the northern part of the map, because they're clustered more or less close to one another. The fourth one, however, is farther to the south and this means traversing possible fire lanes that the enemy is using. If your men come under fire, change their movement order to Caution (if not done already) and call in a smoke round from your mortars to hide the men accordingly.



Soon, the final Victory Location will be yours. Being able to capture all of them in any given SA2NDWAVE battle is no small feat, especially against a tenacious AI that seeks to cause you trouble to the very end.

### 7.0.3.4 AFTERMATH

These Tutorials were designed to balance in favor of the Americans, obviously, as being on the attack is always less favorable when considering the enemy has good defensive positions and is in unknown strength. Never take lightly any enemy position, as overconfidence is a sure way to failure.

## 7.1 LESSONS

Create a balanced mix of manpower for each mission that allows you the greatest flexibility. Select a good balance between armor, vehicles, and men to ensure the highest number of survivors in each mission.

Do not concentrate your men in one place, unless you have no choice while deploying (due to a restrictive deployment grid, for instance). Spread them out.

Use armor and vehicles as the infantry support platforms they're supposed to be; one cannot survive without the other, especially when facing both on the enemy's side.

The battlefield in SA2NDWAVE is a truly hostile environment; expect to take casualties no matter how careful your plans.

If on the defensive, consider conserving a small part of your force to use as a counterattack group if the enemy is knocked off balance.

If on the offensive, consider taking on more mortars and/or infantry guns to pound the enemy's positions. Artillery is a decisive factor in SA2NDWAVE, as the Germans in the last two scenarios can attest to.

Overall, before starting the battle have plan in mind but be prepared to amend it as the enemy chooses to not cooperate. The AI in the game will be sneaky, using your own tactics against you, so be prepared to reevaluate your decisions on the fly.

## TECHNICAL SUPPORT

A support page with FAQs can be found at [www.sa2ndwave.com](http://www.sa2ndwave.com). If you don't find your answer there, please contact [techsupport@GotGameEntertainment.com](mailto:techsupport@GotGameEntertainment.com). Please include "SQUAD ASSAULT" in your subject heading. To get the best solution to you as quickly as possible, please provide a clear description of your problem or question regarding the game along with details on your computer and operating system.

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