

V FOR VICTORY

MARKET GARDEN

OPERATIONS MANUAL



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MARKET-GARDEN OPERATIONS MANUAL

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INTRODUCTION TO MARKET-GARDEN

Market-Garden is a detailed and highly realistic strategy game of WWII ground combat, as seen from the standpoint of a divisional or corps-level commander. The emphasis of the game is on evaluating information and making decisions, not on the mechanics of operating the computer or entering your moves. The "staff assistant"™ and simple mouse-and-menu interface give you the choice of considering every detail in your decisions, or Just concentrating on the Big Picture. Market-Garden Is a complex and detailed game that is also easy to learn and play.

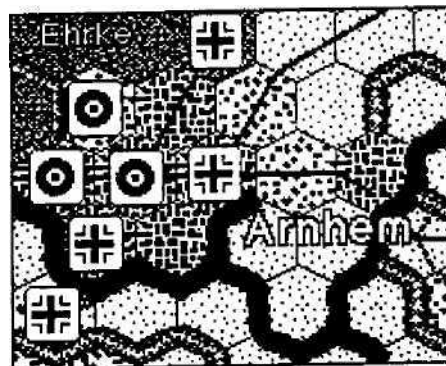
The setting of the game is the area between the Meuse-L'Escaut Canal and the city of Arnhem, on the northern sector of the Western Front, during the late summer of 1944. You can command either side against the computer or another player. You issue movement and combat orders to your units, allocate supply and replacements, construct field fortifications, and request air support. You have access to substantial amounts of information about your own as well as enemy units, reinforcements, victory conditions, and weather forecasts.

There are seven different scenarios of increasing size and complexity, beginning with "The First Bridge," an introductory scenario for new players. In addition to the seven basic scenarios, there are also numerous historical options and variants. When- selected in various combinations, these options and variants create the equivalent of *dozens* of different scenarios.

The Victory PAK™ includes a Reference Manual and an Operations Manual. This Operations

Manual contains all the necessary information about how to play the game, including a special "Quick Start" section for new players. The Reference Manual contains more detailed information about the game routines, plus extensive historical background information, designer's notes, and a bibliography. The Quick Reference Card contains several charts and tables that summarize the different terrain types, their movement and combat effects, unit types and symbols, keyboard equivalents, etc.

Market-Garden is the third game in the V for Victory series. We hope you find all the V for Victory games to be interesting, informative, and challenging, but most of all - *enjoyable*.



are either gray or blue (half black and half white on B&W monitors). Each unit has an icon on it that indicates the kind of unit it is, as well as an identification number.

To obtain information about a particular unit or to assign orders to it, move the cursor to the unit and click on it. This draws a green border around the unit and opens the Unit Window at the bottom of the screen.

Note: the map area covered by this scenario is the same size as a standard 13-inch monitor, so no scrolling is required unless you have a smaller monitor. To scroll the map, move the cursor to the scroll box at the bottom right corner of the screen and click on the direction you want to go. Holding the mouse button down on one of the scroll arrows causes the map to scroll continuously, as fast as your computer can redraw the screen. Whenever one of the boundaries to the playing area for that scenario is reached, the map ceases to scroll in that direction, in spite of additional inputs.



Let's start with the stack of American units that has the infantry icon and the number "502" on it. (This is the American stack closest to Zon.) When you click on this stack, all the units in the stack appear in the Unit Window at the bottom of the screen, along with some information about them. The left unit in the Unit Window is highlighted, and to its left you see its name, current headquarters, and type. You can see that it is an airborne infantry unit, specifically the 3rd Battalion of the 502nd Airborne Infantry Regiment, 101st Airborne Division. On the right side of the window you see the current attack, defense, armor, and antitank

strengths of this unit, as well as its current morale, fatigue, and disruption levels. The number after the word "Normal" tells you its normal maximum (or full) attack and defense strength.

Next let's examine the 2nd Battalion of the 502nd Airborne Infantry Regiment, which is located in the same hex. The easiest way to do this is to click on it within the Unit Window at the bottom of the screen. (It is the one with two dots, signifying it as the 2nd Battalion of the regiment.) This causes the green border to highlight the 2nd Battalion, which means that the rest of the data now displayed in the Unit Window pertains to that unit. (Another way is to click repeatedly on the stack on the map. This re-organizes the stack, changing which unit is shown on top, and on the left side of the Unit Window.)



In the next hexagon to the left of the stack containing the 502nd Regiment is another stack of American units. The top unit in this stack has an infantry icon, the number "101," a dot in its upper right corner, and a stripe in its lower right corner. If you click on this unit, the Unit Window shows that it is reconnaissance infantry, specifically the Reconnaissance (Pathfinder) Company of the 101st Airborne Division. The dot at the upper right of the unit means it is motorized, and the stripe at the lower right means it is a company.



Stacked beneath the 101st Recon Company is the Divisional Headquarters of the 101st Airborne Division. Some of the other types of units that you have under your command in this scenario are glider infantry (represented by a infantry icon), glider artillery (represented by a

cannon icon), engineers (represented by an infantry icon and the letter "E"). and anti-aircraft (represented by an anti-aircraft gun).

There are two ways to assign orders to an Individual unit. For now we'll use the simplest method. (Another method that gives you more control is described in Part II.) Click again on the first stack that we looked at (with the 1st, 2nd, and 3rd Battalions of the 502nd Regiment), and hold the mouse button down. This causes the green "current unit" border to appear around the hex. Now drag the cursor two hexes to the southeast (adjacent to the German stack on the other side of the river), and release. Your "staff assistant" assigns a movement path to the destination for the **top unit** in the hex, and shows it with red arrows.

Note: except for artillery, a unit must **start the turn adjacent** to an enemy unit in order to attack it. Due to the time and distance scale of the game (one kilometer per hexagon and four hours per turn), it would not be historically correct for units to be able to both move and attack during the *same* turn. Therefore, you should plan your movement with the intention of setting up attacks for the next turn.

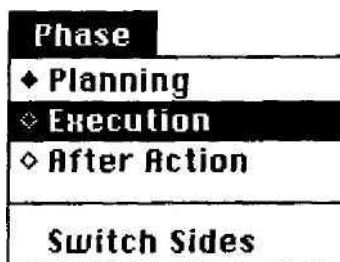
To use this technique to assign orders to the other units in the stack, click once on the stack (and release) to bring another unit to the top of the stack. Then click on it, hold the mouse button down, drag the cursor to where you want this unit to go, and release. If you change your mind or want to try again, just repeat the procedure and drag the cursor to a different hex.

Now assign movement orders for the rest of your units using the "click and drag" technique

described above. Remember to click on a unit, hold the mouse button down to grab it, then drag the cursor to the destination and release. Movement destinations **may** be more than one hex away, although if they are on the other side of an enemy unit, your staff assistant usually assigns a very long path which goes completely around the enemy unit. If the destination requires more than one turn to reach, only that portion of the path which can be traversed during the current turn is indicated by red arrows.

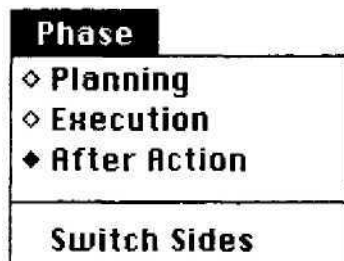
Note that if you click on a unit which has already been given orders, its planned movement path is re-drawn on the map. If you change your mind and want that unit to move somewhere else, grab it again and drag the cursor to the new destination. The new orders automatically replace the old ones.

THE EXECUTION PHASE



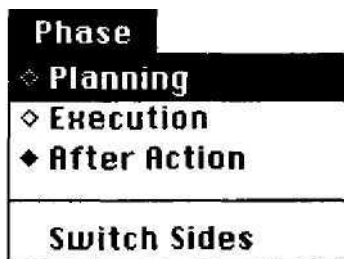
When you're satisfied with all your movement orders click on **Phase** (at the top of the screen), drag the cursor down to **Execution**, and release. This action triggers a sound cue, and advances the game from the Planning Phase to the Execution Phase of the current turn. The units of both sides carry out their orders simultaneously .

THE AFTER-ACTION PHASE



If the "After Action Battle Reports" option from the Options Menu is "on," the game is now in the After-Action Phase. Otherwise, it has already proceeded to the Planning Phase

of the second turn. During the After-Action Phase, each hexagon on the map where combat took place during the Execution Phase is marked in some way. By clicking on each of these hexes, you can obtain a report (shown at the bottom of the screen) on what happened there. There was *probably* no combat during the first Execution Phase; if there was (and if "After Action Battle Reports" is "on") each hex where combat took place is marked by a colored border and/or a flag. Clicking on one of these battle hexes opens the Battle Report Window at the bottom of the screen. There is also a chance that the Zon Bridge (or any other bridge you moved next to) has been destroyed. If this happens, a report appears telling you which bridge was blown.



THE PLANNING PHASE

When you're through reviewing the situation in the After-Action Phase, click on **Phase** (at the top of the

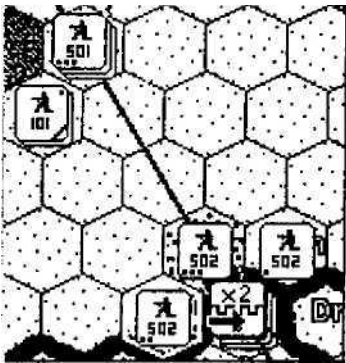
screen), drag the pointer down to **Planning**, and release. This action advances the game from the After-Action Phase to the Planning Phase of the second turn.

A WORD ABOUT STACKING



As you've already seen, it is possible for more than one unit to be in the same hex at the same time. Technically, the "stacking limit," or the maximum number of units that may be in the same hex at the same time, depends on the size of the units and the type of terrain. For most units and most types of terrain, a maximum of three units may be in the same hex at the same time. Each "stack" may contain units from only one side; Allied and German units can never be in the same hex at the same time.

If you wish to assign **exactly** the same orders to **every** unit in a stack, you can press the "shift" key, click on the stack while holding the "shift" key down, keep the mouse button down while dragging the cursor to where you want the stack to go, and release. This enters those orders for **every** unit in the stack all at once, thus saving you from assigning the same orders several times for units that are already stacked together.



COMBAT

As stated above, non-artillery units must be **adjacent** to enemy units in order to attack. (Artillery is discussed in the next section.) As a result of your movement on the first turn, several of your units

should be adjacent to enemy units and therefore ready to attack.

Assigning orders to attack an adjacent enemy unit is easy; in fact, it's exactly like movement. When you grab-and-drag one of your units onto an *adjacent* enemy unit, the game assumes that you mean to attack the enemy unit. (The other, more complicated way of entering orders described in Part II gives you many more options, and allows you to differentiate between an attack and movement into an adjacent, enemy-occupied hex.)

So, to attack an enemy unit, click on one of your units that is adjacent to the enemy, hold the mouse button down, drag the cursor onto the adjacent enemy unit, and release. A red arrow appears just as if you had assigned movement onto that hex.

When attacking an enemy unit, it is usually a good tactic to attack it with several of your units at once, from two or more directions. This increases the "odds" of your attack, which in turn

increases your chance of success.

ARTILLERY



Artillery units have a maximum range of 3 or more hexes, so they do *not* need to be adjacent to an enemy unit in order to attack it. In fact, it is much better for them if they are not adjacent to the enemy. In "The First Bridge," the American player only has one artillery unit, and it does not arrive until the second day of the scenario. However, to assign an artillery attack (also known as a "fire mission"), first click on the artillery unit to get the green border around its hex, then press the "alternate" key (the "command" key on Macintosh computers) and hold it down (note the cursor changes to a red bulls-eye), move the cursor to the **target** hex, and click on it. Now release the alternate (or command) key. Blue and red target markers appear on the target hex, and blue and green target markers appear on any of your units that are adjacent to the target hex. The red target marker (a bulls-eye with the letter "A" on it) indicates the target hex for an offensive fire mission. The green target markers (small shields) indicate defensive fire missions, which will benefit your units. The blue target markers show all the target hexes of the currently-selected artillery unit. For more information, see "Artillery" in Part II and in the Reference Manual.

To change your mind and designate a different target hex, alternate-click (command-click) on the new target. To cancel the fire mission altogether, alternate-click a second time on the same target hex. If you hear the sound of a horn when you alternate-click on a target hex, it means that hex is not a permissible target. To see

a help message that explains why it is not permissible, alternate-click on the hex again and hold the mouse button down. To assign orders to a different unit, click normally on the new unit.

Artillery fire missions may be assigned against the same enemy units that are being attacked by your "front-line" units. When it's available, it is usually a good idea to include plenty of artillery in your attacks, because this adds the barrage strength of the artillery units to the attack strength of your front-line units. In general, any number of artillery units may be assigned to attack the same target hex, although if the "One Division Per Attack" Realism Option is in effect, all of the attacks made against a given hex must be from units attached to the same headquarters.

You may also assign artillery to attack enemy units that are not being attacked by any of your "front-line" units, as well as hexes that are completely unoccupied during the Planning Phase. If the target hex is not on the front line or is unoccupied, your artillery has an "interdiction" effect. This tends to inhibit the activities of enemy units in the target hex, or which attempt to move through or leave the target hex.

As mentioned above, there are no American artillery units on the map at the start of "The First Bridge," but one will arrive as a reinforcement on the second day. Then you may assign fire missions to it using the procedure described above.

AIR SUPPORT



Air support is somewhat like artillery. The biggest differences are that players

have less control over aircraft than they have over their other units, and the air units are not represented by a picture of the actual unit on the map. Air support is "requested" by clicking on the aircraft button that is located at the top of the Operations Sidebar.

The amount of air support that is available to each side depends upon which of the "Air Superiority" options is selected within the Scenario Selection Screen at the beginning of each game. When "Limited Allied Air Superiority" is in effect (which is the historical default setting in all the Market-Garden scenarios), the Allied player has more air support available than the German player.

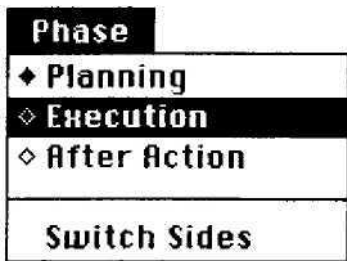
Let's request some air support (the actual WWII term was "ground support") to see how it works. First, go to the Operations Sidebar by clicking on the lower right corner of the General Sidebar. Then click on the aircraft button at the top of the Operations Sidebar. This opens the Ground Support Window at the bottom of the screen.

There are two types of ground support missions available: fighter-bombers and light/medium bombers. Clicking on the large aircraft button on the left side of the Ground Support Window alternates between these two options.

To assign either type of ground support mission, click on the desired target hex on the map when the option you want is showing on the large aircraft button. To cancel an air support request, click on the same target hex a second time. To close the Ground Support Window, click again on the aircraft button at the top of the Operations Sidebar.

Note: requested ground support missions may or may not arrive. The more ground support missions which you request for that turn and the worse the current weather conditions, the greater the chance that a particular ground support mission will **not** be carried out.

THE EXECUTION PHASE



When you're satisfied with all your attack and movement orders, click on **Phase** (at the top of the screen), drag the cursor down to **Execution**, and release. This action

advances the game from the Planning Phase to the Execution Phase of the current turn. The units of both sides carry out their orders simultaneously.

When combat occurs during the Execution Phase, the movement arrows of those units which are attacking adjacent enemy units are shown briefly along with several other types of visual and sound cues. Air attacks are indicated by a small aircraft symbol. Each hex where a full-scale battle takes place is outlined in red, and each hex where interdiction has been assigned is outlined in purple. On black and white monitors, these hexes are shown with thicker-than-normal solid and dashed borders, respectively. The winner of each full-scale battle is indicated by a small national flag that appears in the hex where the combat took place. Message windows containing brief Battle Reports also appear, stating the results of

each battle as it is resolved.

During the After-Action Phase, you can obtain more detailed information about the results of each battle and interdiction attack. To do so, click on one of the flags or outlined hexes. This opens the Battle Report Window at the bottom of the screen.

ON TO VICTORY!

You have completed your first two turns of V for Victory: Market-Garden, and now you know everything necessary in order to play and enjoy the game. You have 7 turns left to capture the bridges at Zon and Best, and open the highway. The scenario will end after the 6:00 PM game-turn of September 18. The more rapidly you can take these objectives, the greater will be your victory. There are also two other hexes (geographic objectives) that you should capture as quickly as possible, because each one is worth victory points for each turn you occupy it. These are the villages of Best and Herkenshagen. None of these objectives begin the game already under your control, and you need to take them as quickly as you can. Each of these geographic objectives is labeled on the map. To see what each is worth, click on the "V for Victory" button at the bottom of the General Sidebar. This opens the Victory Window at the bottom of the screen.

The right side of the Victory Window contains two buttons labeled "Next" and "Locate." plus a window between them that shows the name of the first geographic objective, the village named "Zon." Click on "Locate" to see where the village is located. Click on "Next" to see the next objective and where it is located, and so on. The sooner

you take all of them, the greater will be your victory. The *order* in which you take them does not matter.

AFTER YOU'VE WON . . .

After you've won your first game of "The First Bridge," sit back and critique your victory. Could you have done anything differently? Could you have made more attacks? Better or stronger attacks? Did you make maximum use of your artillery and aircraft? Could you have captured any of the geographic objectives sooner? Could you have surrounded any of the German units to keep them from retreating, thus eliminating them sooner?

If your answer to any of these questions is "yes," you should play "The First Bridge" again and apply what you've learned. You'll probably do much better the second time.

Of course, there's a lot more to the game than what you've seen so far. Your skills will improve rapidly as you read the manuals and gain more experience. Part II of this Operations Manual begins with the Scenario Selection Screen and explains all the game features and options, and briefly tells you how to do additional things like digging in, taking replacements, assigning supply, etc. The separate Reference Manual includes detailed explanations of how all the game routines work, and the historical reasons for why they work that way.

The seven scenarios are listed on the Scenario Selection Screen in order of increasing size and difficulty. We recommend that you play the Allied side in "The First Bridge" at least twice,

and that you achieve at least a Substantial Allied Victory, before trying "Hell's Highway," "Breakout of XXX Corps" or "Screaming Eagles." You should play all those scenarios to completion before going on to "Groesbeek Heights." "Destruction of the 1st Airborne" and "A Bridge Too Far" (the Campaign Game) are very large scenarios, with many situations sure to test the abilities of even the most advanced players.

II. ADDITIONAL GAME FEATURES

MORE ABOUT THE SCENARIO SELECTION SCREEN

The top half of the Scenario Selection Screen contains a number of menus and buttons that let you select which scenario and which side you wish to play, and also lets you choose among different options for historical variants, air superiority, weather conditions, and realism. The bottom half of the Scenario Selection Screen contains your situation briefing and an inset map that shows you the area covered by the scenario.



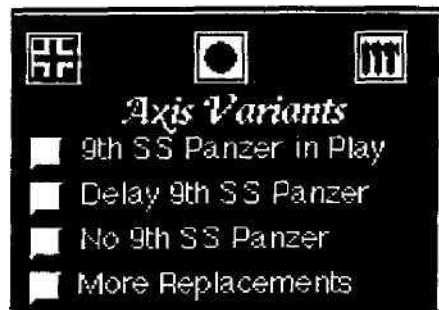
There are three options listed under the heading "Allied Variants." Each of these changes the original Allied plan for the battle in a way which gives the Allied player greater strength and/or flexibility. Not all of them are relevant in every scenario; only the ones that make sense with the chosen scenario are selectable.

Alternate Drop Zones. If you select this option, some American and British airborne units have drop zones which are closer to their objectives.

Alternate Reinforcement Drops. If you select

this option, some American and British airborne units which arrive as reinforcements have drop zones which are closer to their objectives.

No Flank Restrictions. If you select this option, the units of the British VIII and XII Corps are released from their geographic restrictions, and are free to move and attack anywhere on the map.



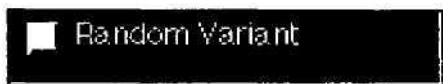
There are four options listed under the heading "Axis Variants." These are historical variants that change the game situation into something that did *not* actually happen in reality, but could have. Not all of them are relevant in every scenario; only the ones that make sense with the chosen scenario are selectable.

9th SS Panzer Division in Play. If you select this option, all the units of the 9th SS Panzer Division begin the game on the map in the Arnhem area.

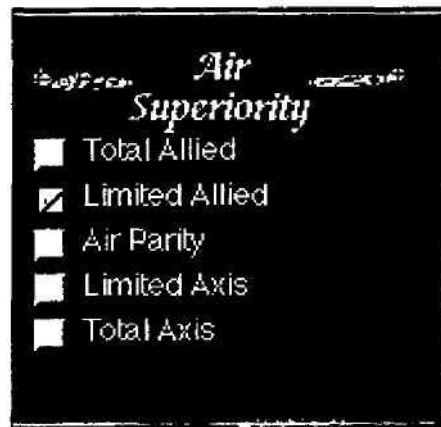
Delay 9th SS Panzer. If you select this option, no units of the 9th SS Panzer Division begin the game on the map, but some or all of them may arrive as reinforcements.

No 9th SS Panzer. If you select this option, the entire 9th SS Panzer Division is removed from the game.

More Replacements. If you select this option, most German infantry-type units begin the scenario at full strength, and the German player receives more infantry replacement points during the course of the scenario than he otherwise would.



Both the Allied and Axis Variant Menus contain an option labeled "Random Variant." If you select this option, the game randomly selects and implements one of the other variants from that same list, *without* automatically revealing to the players which variant was selected. There is also a ten percent chance that two of the other variants from that same list will be randomly selected and implemented.



There are a total of five options listed under the "Air Superiority" heading, but only the middle three can be selected in Market-Garden, and only one of them can be in effect at a time. See "Historical Options and Variants" in the Reference Manual for more information. Note that the further down this list you go, the less "historical" the game will be, and the greater the effect on the play balance of the game. The air superiority options which can be selected in Market-Garden are:

Limited Allied. This is the historical air situation; the Allied player has more air support and air interdiction available than the German player.

Air Parity. If you select this option, both sides receive approximately equal levels of air support and air interdiction. This means that, compared to the historical situation, Allied air support and the effects of Allied air interdiction are reduced, and German air support and air interdiction are increased.

Limited German. If you select this option, the German player receives more air support and air interdiction than the Allied player.

(Note that the options for "Total Allied" and "Total German" air superiority are not selectable because either situation in the air war would have been historically incompatible with the ground battle as depicted on the map, and would have led instead to a fundamentally different ground situation, which is beyond the scope of the game.)



here are a total of six options listed under the "Weather" heading. They are:

Historical. If you select this option, the turn-by-turn weather in the game will be identical to the real weather conditions recorded in Holland during the time period covered by the game.

Realistic Probabilities. If you select this option, the turn-by-turn weather will be different from

the actual, historical weather, but the overall probabilities will be the same as they were in reality.

Less Cloudy. If you select this option, the weather will be less cloudy than it was in reality. This has a positive effect on air operations, benefiting the side that has air superiority.

More Cloudy. If you select this option, the weather will be more cloudy than it was in reality. This has a negative effect on air operations, and tends to hurt the side that has air superiority.

Colder. If you select this option, the average temperatures in the game will be colder than they were in reality. However, due to the location and date of this battle (Holland in September), colder temperatures alone will have no effect on the game.

Warmer. If you select this option, the average temperatures in the game will be warmer than they were in reality. However, due to the location and date of this battle (Holland in September), warmer temperatures alone will have no effect on the game.



There are three options listed under the "Realism"

heading; any or all of them can be in effect at the same time. In each case, selecting one of them (by clicking on the button next to the name) makes the game more like the "real thing." If you want to experience as much as possible of what *real* WWII military strategy was like, click on all of them! The three realism options are:

Limited Intelligence. If you select this option, the game will **not** give you complete information about all the enemy units. They may be represented by generic "side" or "type" markers that reveal only a little information, or they may not even appear on the map at all. In general, the more contact your units have with a particular enemy unit, the more you will learn about it.

One Division Per Attack. If you select this option, the game will not allow you to have units that are attached to different HQ's participate in the same attack. In other words, all the units participating in any one attack must be attached to the **same** HQ, **including** artillery. This does not apply to air support, because it is not subject to the attachment restrictions.

Fog of War, If you select this option, the game will not always give you complete information about **your own** units.



There are a total of four options listed under the "Opponents" heading, but only two of them can be selected in Market-Garden. They are:

Local Human Opponent. If you select this option, both sides in the game are controlled by human players. You will need to take turns assigning your orders, and the game facilitates this for you by keeping track of whose turn it is, and where both sides are in the sequence of play. For more information, see "Two-Player Procedures" near the end of this Operations Manual.

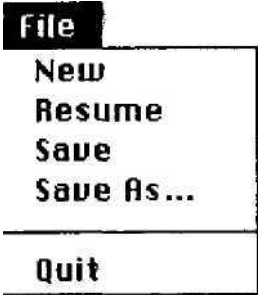
This Computer. If you select this option, you control the side indicated by the check mark on the left side of the Scenario Selection Screen, and the computer controls the other side.

Finally, before beginning a new game, review your selections within the Scenario Selection Screen to make sure everything is the way you want it. After you leave this screen, you **cannot** change any of these options or variants (unless you wish to start another new game).

MENU BAR

After you leave the Scenario Selection Screen, a standard Menu Bar appears across the top of the screen. Each word on the Menu Bar has its own pull-down menu that can be viewed by clicking on the word and holding the mouse button down. To select one of the items from a pull-down menu, hold the mouse button down, drag the cursor down to the item you want, and release.

File Menu



The **File Menu** includes the following items:

New. This returns you to the Scenario Selection Screen so that you can begin a new game.

Resume. This allows you to locate and select a previously-saved game, so

that you may continue playing it.

Save. This saves the game you are currently playing. If you have not already done so, when you select "Save" the dialog box asks you to name the game and specify the location where it will be saved. The name may be any combination of up to 32 letters, spaces, and numerals. However, the first character **must** be a letter.

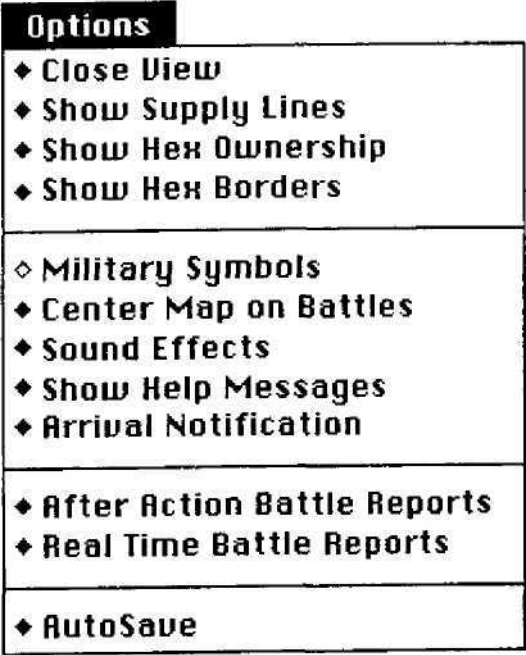
Save As ... This allows you to specify (or change) the name and location where the current game will be saved.

Quit. This terminates the game. Note that there is **no** fail-safe "Save" prompt, so if you want the game to be saved, you **must** select either the "Save" or "Save As..." options before quitting.

Options Menu

The **Options Menu** includes a number of display options and player aids that may be selected and/or changed at any point during play. In each case, if the small diamond to the left of the item

is **hollow**, that option is **off**; if the diamond is **filled in**, that option is **on**. To change any option, hold the mouse button down, drag the cursor down to the option you want, and release.



Close View. When this option is "on," you see the normal or "zoomed in" view of the game map. When it is "off," you see a "zoomed out" view.

Show Supply Lines. When this option is "on," clicking on one of your units causes its supply line back to its Headquarters to be shown briefly.

Show Hex Ownership. When this option is "on," "friendly territory" is shown in the normal

(lighter) color scheme, and "enemy territory" is shown in a slightly darker color scheme. On black and white monitors, hexes that are controlled by the enemy are indicated by a small black dot in the center of the hex when this option is "on."

Show Hex Borders. The game uses a hexagonal grid (1 kilometer per hexagon) to control movement and combat. You may choose whether or not the borders between the hexagons appear on the map. When this option is "on," the borders are displayed on the map.

Military Symbols. When this option is "on," standard military symbols appear on the units. When it is "off," pictorial icons appear instead.

Center Map on Battles. When this option is "on," the map automatically scrolls to center each battle in the field of view as it occurs during the Execution Phase.

Sound Effects. When this option is "on." (and the volume is turned up on your computer), you will hear helpful cues and sound effects during play.

Show Help Messages. When this option is "on." you will receive helpful messages during the game from your "staff assistant."

Arrival Notification. If this option is "on," you will receive a message when reinforcements for your side arrive on the map.

After Action Battle Reports. When this option is "on," each turn ends with an "After Action Phase," during which you can obtain detailed Information about the battles which occurred that turn. When this option is "off," there is no After

Action Phase, and the game automatically proceeds from the Execution Phase to the Planning Phase of the next turn.

Real Time Battle Reports. When this option is "on," message windows containing brief Battle Reports momentarily appear on the screen as each battle is resolved during the Execution Phase.

Staff Duties Menu

Staff Duties
◆ Handle All Operations
◆ Allocate Supply (Each Day)
◆ Plan Fire Support (Each Turn)
◆ Ok To Use Air Force
◆ Plot Ground Units (Each Turn)
◆ Handle Night Moves
Plan Fire Support Now
Plot Ground Units Now

The **Staff Duties Menu** contains the following player aids:

Handle All Operations. When you turn this option "on," you delegate **everything** to your staff assistant, and he plays the game for you until you turn the option off (or until the scenario is over). The staff assistant assigns orders to all of your units as he sees fit, and automatically proceeds to the next phase as soon as he is ready. To turn

this option off, select "Handle All Operations" again,

Allocate Supply (Each Day). If this option is "on," your staff assistant automatically allocates supply to each of your HQ units during each 8:00 AM Planning Phase, based on his analysis of the situation.

Plan Fire Support (Each Turn). If this option is "on," your staff assistant automatically allocates a fire mission to each of your artillery units that is ready to fire and for which you did not assign orders. Your staff assistant also requests air strikes for you (as indicated by the next item), if you don't want to assign, these yourself. If your staff assistant determines that your front-line units need support, he assigns it for you; otherwise, he picks suitable targets. Under this option, computer-assigned fire missions and air support requests are not made until immediately **after** you go to the Execution Phase (i.e., you do **not** have an opportunity to review them prior to Execution).

Ok To Use Air Force. If this option is "on," "Plan Fire Support" also makes automatic allocations for air support, (You have the option for your staff assistant not to request air support because if he requests missions in addition to those that you request, it lowers the probability that any of them will actually be carried out. See "Ground Support" in the Reference Manual.)

Ok To Use Navy. This option is not selectable in Market-Garden because there is no naval support in the game.

Plot Ground Units (Each Turn). If this option is "on," your staff assistant automatically assigns

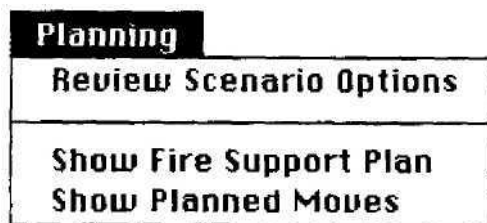
orders to each of your non-artillery units for which you did not assign orders. Under this option, computer-assigned orders are not made until immediately **after** you go to the Execution Phase (i.e., you do **not** have an opportunity to review them prior to Execution).

Handle Night Moves. In effect, this option allows you to "skip" night turns to whatever extent you wish. If this option is "on" and the current turn is a night turn, your staff assistant automatically performs the other actions you have delegated to him from this menu (if any), and then proceeds to the next phase as soon as he is ready. If "Handle All Operations" is "on," this option has no additional effect. If none of the other options from this menu are "on," this option causes your staff assistant to automatically proceed to the Execution Phase of the turn without assigning any orders or actions to your units.

Plan Fire Support Now. When you select this option, you are invoking the same routine as "Plan Fire Support (Each Turn)" (see above), but your staff assistant makes his target assignments and support requests immediately, so that you can review and revise them if you wish.

Plot Ground Units Now. When you select this option, you are invoking the same routine as "Plot Ground Units (Each Turn)" (see above), but your staff assistant assigns his orders immediately, so that you can review and revise them if you wish. (If you are playing one of the larger scenarios, it may take the computer 30 seconds or more to do this.

Planning Menu



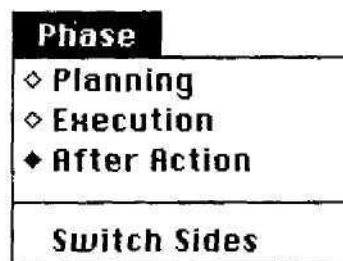
The **Planning Menu** contains the following options and player aids:

Review Scenario Options This option re-opens the Scenario Selection Screen so that you may refresh your memory regarding your initial briefing and the historical variants that you selected (although the variants may not be changed at this point).

Show Fire Support Plan. This option draws a line from each of your artillery units to its assigned target. To remove the lines, click anywhere.

Show Planned Moves. This option shows each of your units in the location where it is **supposed** to be at the end the turn, and also draws a line from each of your artillery units to its designated target. **Note:** events during the Execution Phase (such as traffic jams, enemy units, and the results of combat) often prevent units from reaching their assigned destinations. To return your units to their actual locations, turn "Show Planned Moves" off by selecting it again, or by clicking anywhere.

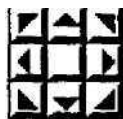
Phase Menu



The **Phase Menu** shows the three phases of each game-turn. **This is the means by which you go to the next phase when you are finished with the current one.** In each case, the diamond next to the **current** phase is filled in, and the next phase is the only one that can be selected. **Caution:** be sure you are finished with the current phase before you select the next one. Once you have selected the next phase, you **cannot** back the game up to return to an earlier phase.

Below "After-Action" on this menu is "**Switch Sides.**" This is the means by which you turn the computer over to the other player, if you are playing against another person. (See "Two-Player Procedures" at the end of this manual.)

SCROLLING THE MAP



To scroll the map, move the cursor to the scroll box at the bottom right corner of the screen and click on the direction you want to go. Holding the mouse button down on one of the scroll arrows causes the map to scroll continuously, as fast as your computer can re-draw the screen. Whenever one of the boundaries to the playing area for that scenario is reached, the map ceases to scroll in that direction, in spite of additional inputs. **Note:** in the first scenario, the area covered by the scenario is the same as a standard

13-inch monitor, so no scrolling is required (or possible). Other scenarios cover larger areas, and therefore require more scrolling.


MORE ABOUT UNITS, STACKING, AND THE UNIT WINDOW



In Market-Garden, most of the units on both sides represent battalions, but there are some smaller companies as well. **Company-sized units are indicated by a diagonal slash in their lower right corner.** Each headquarters unit actually represents several battalions of non-combat support troops (such as signals, medical, quartermaster, supply, etc.).


As you may already have noticed, whenever there is only one unit in a hex, its picture within the Unit Window is highlighted by green brackets (white brackets on B&W monitors). The highlighted brackets mean that unit is currently "selected." All of the data displayed within the Unit Window pertains to the selected unit, and any orders that are entered are assigned to it.



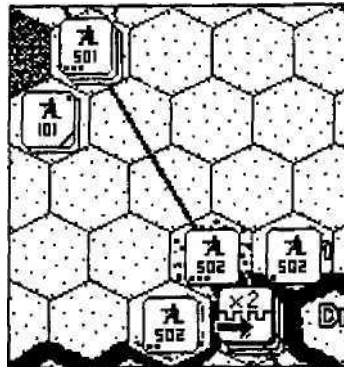
 If there is more than one unit stacked in the same hex, all the units in that hex are shown within the Unit Window when you click on the stack. The unit that is on the top of the stack always appears on the left side of the window, and initially it has the highlighted brackets around it meaning that it is "selected". Once more, this means that all of the displayed

data pertains to that unit, and any orders that are entered are assigned to it. To select one of the other units in the stack, you can either click again on the stack on the map (which changes the unit shown on top of the stack and therefore within the highlighted brackets), or you can click directly on the picture of the unit you want to select within the Unit Window.




 If you want to see the total values for an entire stack (such as the total defense strength of the entire stack), push the "Hex" button in the middle of the Unit Window. Note that the "Hex" values for attack, defense, armor, and antitank strength are the sums of those values for all of the units in the stack, while the "Hex" values for morale, fatigue and disruption are the *averages* of those values (weighted for the size of each unit).

MORE ABOUT COMBAT



Except for artillery and aircraft, all units must be **adjacent** to enemy units. In order to participate in combat.



Combat occurs during the Execution Phase of the game-turn. For each combat, the game calculates (and may modify) the attack and defense strengths, determines (and may modify) the initial combat odds, determines the result of the combat, and

implements the result.

Attack Strengths, Defense Strengths, and Combat Odds

Attack:8	Defense :8
Normal:10	Morale :6
Armor :6	AntiTank:12
Disrup:	Fatigue :

When one or more units attack an adjacent enemy unit, they use their attack strengths, and the defending unit(s) use their defense strengths. The odds of a particular attack are simply the sum of the attack strengths of all the attacking units, divided by the sum of the defense strengths of all the defending units. Combat odds are expressed as a ratio, such as 3:1 or 6.5:1. The higher the odds, the greater the probability the attack will succeed, and the greater the damage that will probably be inflicted on the defender.

UnModified
Atk Armor
4.0 9.0
Supply
Terrain
Fatigue
Disrupt
Modified
Atk Armor
1.7 3.9
? Odds ?
7.7 1
Scrub
Intelligence

There are many factors that can modify (in some cases *greatly* modify) the attack and defense strengths of a unit; four of the most important are supply, terrain, fatigue, and disruption. For a lengthy discussion on each of these subjects, please consult the appropriate section in the Reference Manual.

There are also several factors that can modify the final odds of an attack. These include terrain, regimental integrity, armor support, engineer support, and morale. Of these, armor support is the most complicated and has potentially the greatest effect, although terrain and morale can also be very significant.

Armor Support



In addition to their attack and defense strengths, all units have an antitank strength, and all armored and mech recon units have an armor strength. When one or more armored or mech recon units participate in an attack, the sum of their armor strengths is divided by the sum of the antitank strengths of the defending units. If that ratio is greater than 1.0, the combat odds for that attack are increased by the amount of the ratio.

Morale

Each unit has a morale rating that is a measure of the quality of the unit, independent of its size or strength. For each full-scale battle (not interdiction), the game compares the average morale of the attacking units to the average morale of the defending units (including all artillery and air support). If the attacking units have the higher average morale, the combat odds are increased by the difference between the attacker's and defender's average morale. If the defending units have the higher average morale, the combat odds are decreased by the difference in average morale between the two sides. If both sides have the same average morale, there is no morale modification to the combat odds.

For a complete discussion of all modifications to the combat odds, please refer to the "Combat" section in the Reference Manual.

Artillery



In addition to the other combat factors described above, artillery units also have a barrage strength, a support strength, and a maximum range. **Barrage strength** is used to attack enemy-occupied hexes, **support strength** is used to increase the defense strength of hexes occupied by friendly units, and the **range** is the maximum distance in hexes from the artillery unit that either of these two strengths may be used. There are many factors that can modify (in some cases *greatly* modify) the barrage and support strengths of an artillery unit. For more information, please refer to "Artillery" below and in the Reference Manual.

USING THE COMMAND BOX



In Part I, you learned how to assign movement and attack orders to your units by "grabbing and dragging" them to where you wanted them to go. Although simple, fast, and quite sufficient most of the time, occasionally you may want to do something more complicated. In such a case, you need to use the Command Box.

To open the Command Box, first click on one of your units or stacks to open the Unit Window at the bottom of the screen. Then click again on the **selected** unit within the Unit Window (the unit that has the highlighted green brackets around it). This causes the Command Box to appear in the

center of the Unit Window, along with the selected unit on the left.

To close the Command Box, click again on the selected unit.

The Command Box contains three data windows and seven buttons. The first data window is labeled "Movement Points Left," and shows the current movement point allowance of the selected unit. The middle window shows what **primary action** has been (or is about to be) assigned to the selected unit, and the third window shows what **secondary action** (if any) has been (or is about to be) assigned. The buttons are used to assign various actions to the selected unit.

Primary Actions



The primary actions consist of several varieties of movement, attack, and defense. A unit may be assigned **only one primary action per turn** (i.e., some type of movement, attack, or defense). Let's begin with movement.

Movement




There are six types of movement: **tactical** (indicated by three long arrows on the button within the Command Box), **strategic** (indicated by a single long arrow), **passenger** (indicated by a tank for the passengers to ride on), **automatic** (indicated by two diagonal arrows joined head-to-tail), **stack movement**, and **divisional movement**.

When you use the "grab and drag" technique described in Part I, you are actually entering automatic movement, which uses the staff assistant to plot a *reasonable* movement path for you (note that it may not always be the best path). Automatic movement may be *carried out* as either tactical or strategic movement, depending on how long the movement path is.

In general, **tactical movement** is safer and better for short distances, and **strategic movement** is faster and better for long distances, especially along roads, but strategic movement is also more dangerous (especially near enemy territory or when the enemy has aircraft).

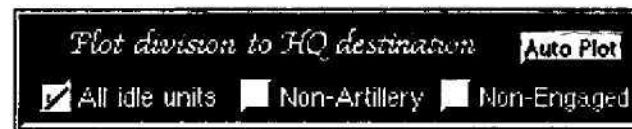
If you wish to select either tactical or strategic movement yourself, or if you wish to plot a specific movement path that is different from what your staff assistant plotted, click repeatedly on the "Move" button within the Command Box until the type of movement that you want is stated above the button. Then return the cursor to the map and click on the first hex of the intended movement path (which must be adjacent to the unit you want to move). Then click on the second hex of the intended path (which must be adjacent to the first hex), and so on. **Each hex** of the movement path must be clicked on separately, and **each hex** of the path must be adjacent to the previously-assigned hex. The maximum length of the movement path is limited by the unit's remaining movement point allowance.

 When plotting **automatic movement** using the Command Box, click on the desired destination hex {the *last* hex in the path}. The game attempts to calculate a path for you using tactical or, if necessary, strategic movement. The longer or more complicated the

path, the longer it takes the computer to calculate it.



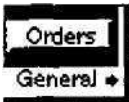

Stack movement is a feature that allow you to use the grab-and-drag technique to assign automatic movement or assault orders to an entire stack of units at the same time, rather than individually. To do this, hold the "shift" key down and click on the stack, keep the mouse button down while dragging the cursor to where you want the stack to go, and release. The game records these movement or assault orders as the assigned orders for **each** of the units in the stack; it is not necessary to assign separate orders or a separate movement path for each of those units.



Divisional movement is a feature that allows you to assign automatic movement orders to some or all of the units that are attached to a particular HQ, regardless of their current location. In each case, the common destination hex is **either** the current location of the HQ unit itself, **or** its destination hex, if it has already been assigned its own movement orders.

To enter divisional movement orders, **first** decide where you want the HQ unit itself to move to, and then assign it movement orders (any type) to that hex. Keep in mind that the destination hex for the HQ is **also** the destination hex for all of its attached units that are conducting the divisional movement. If no movement orders are assigned

or the HQ unit itself, the destination hex for the divisional movement is the *current* location of the HQ unit.

Next, click on the button labeled "Orders" at the bottom of the HQ Sidebar. This opens the Divisional Movement Window at the bottom of the screen. The left side of this window contains three buttons; click on the ones you want, and then click on the button labeled "Auto Plot." This causes your staff assistant to calculate the movement paths. (This may take 30 seconds or more, depending on the number of units, the lengths of the paths, and the speed of your machine.) When the staff assistant is finished, the "Auto Plot" button pops out, and you can close the Divisional Movement Window by clicking on the "Orders" button on the sidebar again.There are several ways to recover if you make a mistake or change your mind. To cancel the last hex of a movement path, press the "Backspace" key ("delete" key on the MAC), or click on the "X" (Cancel) button on the right side of the Command Box. Pressing "Backspace" or clicking repeatedly on the "Cancel" button "backs you up" one hex at a time, as far as you wish to go. If you wish to cancel the entire path at once, press the "Esc" key ("clear" key on the MAC). You can also click on the "move" button, re-select the movement or other action that you want, and start over.

Finally, note that you may use the above procedures to edit a movement path that was calculated by your staff assistant. Suppose that you have already used the "click and drag" technique to assign automatic movement.

However, you don't take part of the path (hopefully the latter part). Select the unit in the Unit Window, open the Command Box by clicking on the unit within the Unit Window, press the "Backspace" key or click on "Cancel" one or more times to erase the portion of the path that you don't like, and then re-enter the rest of the path as you wish by clicking on it yourself (one hex at a time).

Attack



There are four types of non-artillery attacks: **probe**, **assault with no advance**, **assault**, and **all-out assault**. (An artillery fire mission is also an attack, but is **not** considered to be a probe or assault; see "Artillery" below.) **All of the non-artillery attacks that you assign using the "grab-and-drag" technique are assaults.**

A **probe** is a cautious, less-determined attack that reduces the risk of losses. An **assault with no advance** is a vigorous "holding attack." which is intended to pin the enemy or inflict losses, but not to gain ground. An **assault** is a conventional, determined attack. An **all-out assault** is a maximum effort that increases the chance of success, but also runs the risk of greatly increasing the attacker's losses if the attack fails.

If you wish to assign the type of attack yourself, click on the "Attack" button within the Command Box repeatedly until the type of attack you want is stated above the button. Then return the cursor to the map and click on the hex that you wish to attack (which must be adjacent to the attacking

unit).

Pressing the "Backspace" or "Esc" keys, or clicking on the "Cancel" button within the Command Box, cancels any attack that you have assigned to the selected unit. Note that all these techniques cancel only the **destination hex** of the attack; the unit remains under the same attack orders with no destination hex indicated until the end of the next Execution Phase, unless it receives additional or different orders.

Defend



There are three types of defense: **retreat if attacked**, **defend if attacked**, and **hold at all costs**.



Retreat if attacked causes the unit to *attempt* to retreat before combat if it is about to be attacked by one or more adjacent enemy units. **Defend if attacked** is a standard, determined defense, and is also the default option that is automatically assigned to each of your units each turn unless you assign movement or attack orders to the unit, or one of the other defense options. **Hold at all costs** is a maximum defensive effort; the greater the unit's current morale, the greater the probability that it will stay in place and take additional losses rather than retreat.

If you wish to assign the type of defense yourself, click on the "Defend" button repeatedly within the Command Box until the type of defense you want for that unit is stated above the button. The exact path of retreat is always determined by your staff assistant when the battle is resolved.

Secondary Actions



If a unit has been assigned one of the three "defend" options, it may also be assigned a secondary action. Units that are moving or attacking may not be assigned a secondary action.

Admin.

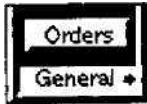


This secondary action consists of taking replacements. In general, armored, engineer and most infantry-type units that have suffered losses can increase their strength by taking replacements, although German armored units in Market-Garden may not take replacements. Headquarters, antitank, anti-aircraft, and artillery-type units may not receive replacements, and losses suffered by those kinds of units may not be replaced.

In order to receive replacements, a unit may not be surrounded or adjacent to an enemy unit. Actually, it's a little more complicated than that, but that's the basic idea. See "Replacements" in the Reference Manual for more information. Each unit taking replacements receives a maximum of one strength point of replacements per turn. Subject to the number of replacement points available, there is no limit on the number of *different units* that may receive replacements during the same turn.

Note: the total number of replacement points available for German units is limited; the numbers vary from scenario to scenario, and the German player has **no** armor replacement points.

The number of replacement points available for British armored units and non-airborne British infantry and engineers is always unlimited. However, there is a catch: the Allied player must pay a victory point penalty for each replacement point that he uses. See "British Replacements" in the Reference Manual. Finally, there are no replacement points available for Allied airborne units.



To see how many replacement points you currently have available, click on the "Orders" button at the bottom of the HQ Sidebar. This opens the Divisional Movement Window at the bottom of the screen; the right side of this window shows the numbers and types of replacement points currently available.

Build



This secondary action consists of constructing field fortifications. Most units may only "dig in"; engineer units may either "dig in" or "fortify". To dig in, first assign the unit one of the three "defend" options, and then click on the "Build" button that has the wavy line at the top (or press "F" on the keyboard).

Each field fortification appears on the map as the uppermost "unit" in its hex. (These are really just markers, not units.) The "size" of a field fortification is indicated by the number at the

bottom of the marker, and that size is the number of companies that may gain full benefit from being in the same hex with it. Each battalion equals 3 companies for this purpose, so a size 9 field fortification can "contain" 3 battalions, which is the stacking limit for most of the hexes on the map.

Both types of field fortifications may be enlarged by having the same or other units build another one in the same hex. Larger field fortifications have no additional effect except that more units may benefit from them.



Digging in usually requires two turns to complete, during which time the unit may not come under attack or become adjacent to an enemy unit. Once the position is complete, the unit that built it is free to leave the hex, and some other unit may occupy it and benefit from it. A unit that is dug in has its defense strength multiplied by 1.5, its antitank strength multiplied by 1.25, and its morale is increased by 1 (when defending only). Also, the strength of all artillery and air attacks made against it are halved.




Fortifications may only be built by engineer units, and usually require four turns to complete. To fortify a hex, first assign the engineer unit one of the three "defend" options, and then click on the "Build" button twice, so that the Secondary Action Window says "Fortify" (or press "F" on the keyboard). Once the fortification is complete, the engineer that built it is free to leave the hex, and some other unit may occupy it and benefit from the fortification. A unit that is fortified has its defense strength multiplied by 2, its antitank strength multiplied by 1.5, and its morale is increased by 2 (when defending only). Also, the strength of all artillery

and air attacks made against it are halved.

Units located in bunker hexes may neither dig in nor fortify.

Finally, note that both types of field fortifications are removed at the end of any turn if there are no friendly units remaining in the same hex with them. However, if the friendly units in the fortification are driven out by an enemy unit and the fortification is captured in the same turn by the same attacking unit, then the fortification may be used by the newly occupying unit.

Artillery

 This button always appears blank unless the selected unit is an artillery unit, and it has been assigned one of the three "defend" options. If the artillery unit is currently ready to conduct a fire mission, this button shows a bulls-eye target symbol, and the word "Target" appears in the Secondary Action Window. If the artillery unit is not ready to fire, this button shows a wrench symbol, and the word "Prepare" appears in the Secondary Action Window.

When an artillery unit is ready to fire and the secondary action is "Target," the mouse cursor takes the form of a red bulls-eye if it is located over a hex that is within the artillery unit's range. The cursor takes the form of an "X" when it is located over a hex that is out of range.

There are several different types of artillery fire missions, and many factors that can affect the barrage and support strengths of an artillery unit. For a complete explanation of these subjects,

please refer to "Artillery" in the Reference Manual.



After it moves into a new hex, the number of turns it takes an artillery unit to "Prepare" depends on the nationality of the unit, as well as the type and caliber of the guns. Most artillery units require one or two turns to prepare. The number following the word "Ready" on the right side of the Unit Window is the number of turns remaining until the unit will be ready to fire; " " means that it is capable of firing this turn.

Cancel



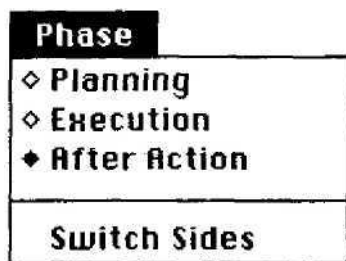
Clicking on this button cancels any movement or attack orders that have been assigned to the selected unit. **Note** that in order to cancel movement orders, you must either click once on the "cancel" button for **each** hex of movement canceled, press the "Backspace" key once for each hex of movement canceled, press the "Esc" key, or switch to another action by clicking on one of the three left buttons.

REVIEWING AND REVISING ORDERS

When you close the Command Box by clicking on the selected unit, whatever action you assigned for that unit is entered into memory and will be carried out during the next Execution Phase. If you select that unit again during the same Planning Phase, its assigned orders are shown within the Command Box, as well as on the map. You may either confirm previous orders or change them as you wish. If you are satisfied with the previous orders, simply close the Command Box

or select another unit. This does not alter the previously assigned orders. If you want to change the previously assigned orders, do so and then close the Command Box or select another unit; this replaces the old orders with the new ones.

MORE ABOUT THE PHASES



Each game-turn is subdivided into three phases. The current phase is indicated by the solid diamond on the pull-down menu under "Phase" on the Menu Bar. Within the Phase

Menu, the next phase is highlighted and is the only one that can be selected. Caution: be sure you are finished with the current phase before you select the next one. Once you have selected the next phase, you cannot back the game up to return to an earlier phase.

Planning Phase

During this phase, you may assign orders to any or all of your units, in any sequence you wish. If it is the 6:00 AM game-turn, you may also:

- use the HQ Sidebar to change attachments (i.e., reorganize your units);

- use the HQ Sidebar to assign supply for the upcoming day;

- use the aircraft button within the Calendar

Window to allocate your available airpower between interdiction and ground support, and (for the latter) you may decide when during the day you want it available.

Note: supply assignment and air allocations may only be performed during the 6:00 AM Planning Phases: whatever you select at that time remains in effect for the rest of the day (six turns). In addition, most re-attachments may only be performed during the 6:00 AM Planning Phases; the only exception here is for units that are currently attached to a Corps or Army HQ. For more information, see "Attachment" in the Reference Manual.

Unless you make changes, all attachments, supply assignments, and air allocations automatically default to whatever was assigned for the previous day. Each game begins with these parameters set to "their historical values. Therefore, new players need not concern themselves with these aspects of the game until they feel ready.

When you have assigned all of your orders, click on the word "Phase" on the Menu Bar, drag the cursor down to "Execution", and release. This action initiates the Execution Phase. (Or ends your Planning Phase, if you are playing against another person. See "Two-Player Procedures" below.)

Execution Phase

During this phase, the game carries out the assigned orders for all units of both sides. When combat occurs, the "movement" arrows of those units that are attacking adjacent enemy units are shown briefly, along with several other types of

visual and sound cues. Air attacks are indicated by a small aircraft symbol. Each hex where a full-scale battle takes place is outlined in red, and each hex where interdiction has been assigned is outlined in purple. On black and white monitors, these hexes are shown with thicker-than-normal solid and dashed borders, respectively. If the "Real Time Battle Reports" option is "on," message windows containing brief Battle Reports also appear, stating the results of each battle as it is resolved. The "winner" of each full-scale battle is indicated by a small national flag that appears in the hex where the combat takes place. At the end of the Execution Phase, the game automatically progresses to the After Action Phase unless the "After Action Battle Reports" option is "off." Otherwise, the game automatically progresses to the Planning Phase of the next turn.

After Action Phase

During the After-Action Phase, you can obtain information about the results of each battle and interdiction attack which occurred during the preceding Execution Phase. Each hex where a full-scale battle occurred is outlined in red and marked by a small national flag; each hex where interdiction was assigned is outlined in purple. On black and white monitors, these hexes are shown with thicker-than-normal solid and dashed borders, respectively. Clicking on one of these flags or outlined hexes displays a Battle Report at the bottom of the screen.

Non-interdiction Battle Reports have two parts: a general briefing, and a detailed accounting of the combat odds and odds modifications for that combat. You may switch between these by clicking on the buttons on the left side of the

Battle Report Window.

When you are finished reviewing the results of the turn, click on "Phase" at the top of the screen, drag the cursor down to "Planning", and release. This causes the game to advance to the Planning Phase of the next game-turn.

SOUND

The game has several sound cues to help alert you to various events. These events include:

"Good clicks" and "bad clicks" on the buttons on the Scenario Selection Screen;

Illegal or impossible orders;

When each side finishes assigning its orders;

When both sides finish assigning their orders;

The beginning of the Execution Phase;

When a battle occurs during the Execution Phase;

When an ambush occurs during the Execution Phase;

The end of the game.

THE SIDEBARS

There are three sidebars that may be viewed, one at a time, on the upper right side of the screen. The purpose of these sidebars is to provide additional information and options. The middle (or default) sidebar is labeled "General", the left

one is "HQ", and the right one is "Operations". To go from one sidebar to the other, click on the appropriate abbreviation at the bottom of the sidebar.



General Sidebar & Calendar Window

This is the middle sidebar. It contains the following items (from top to bottom):

A strategic locator map. Clicking on this map opens a Strategic Map Window that can be "zoomed in" to show Holland and the Market-Garden area. To close the window, click again on the map at the top of the sidebar.

A small Clock Window that shows the time of the current game-turn. Each game-turn represents 4 hours of real time.

A Calendar Page that shows the date of the current game-turn. Clicking on the Calendar Page opens the Calendar Window, which shows (among other things) your reinforcements and a weather forecast for the next five days.

Within the Calendar Window, the days when you are currently scheduled to receive **reinforcements** are marked with ensigns (for the Allied player) or crosses (for the German player). Clicking on one of these ensigns or crosses causes the units that are scheduled to arrive that day to appear at the bottom of the screen, along with a red dot on the small inset map that shows where these units are

scheduled to arrive. Clicking on one of these reinforcing units causes the normal unit data which pertains to that specific unit to be displayed on the left and right sides of the window. If more than nine units are scheduled to arrive that day, a scroll button is active on the right side of the window. You can view additional "rows" of reinforcing units by clicking on this scroll button.

The **weather forecast** which is shown within each daily square in the Calendar Window is an average of the forecast conditions for the six turns of that day. To see the forecast conditions for each of the six turns of a particular day, click on the weather picture within one of the daily squares: this causes the turn-by-turn forecast for that day to appear on the right side of the Calendar Window.

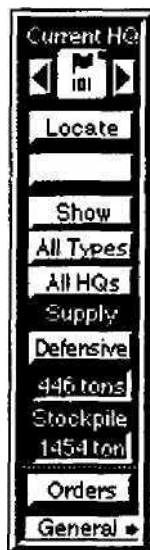
To close the Calendar Window, click on the close box at its upper left corner.

A weather picture that shows the current sky conditions and temperature. Clicking on the weather picture opens the Weather Window at the bottom of the screen, and holding the mouse button down opens a small message window which summarizes the effects of the current sky conditions.

A small map of the entire Market-Garden game area. The center of the current screen area is shown by a red dot. Clicking on any part of the small map causes the main map display to shift to that point (if the spot you click on is within the map area of the current scenario).

A "V for Victory" button. Clicking on this button opens the Victory Window at the bottom of

the screen, which contains information about the victory conditions for the scenario. The Victory Window contains (from left to right) the current victory level, the current victory point totals for both sides in the scenario, and a listing/locator device for all the geographic objectives in the scenario. To close the Victory Window, click again on the "V for Victory" button.



The HQ Sidebar, Attachment, and Supply

This is the left sidebar, and it is used to obtain supply and organizational information. On the 6:00 AM Planning Phases only, it is used to change attachments and assign supply. This sidebar contains (from top to bottom):

Current HQ. Clicking on the Current HQ opens the HQ Window at the bottom of the screen. This window shows all your HQ units currently on the map; if there are more than eight of them, a scroll button on the right side of the HQ Window will be active, and clicking on it will show another "row" of HQ units. The Current HQ is always the one shown at the top of the sidebar, and it is also surrounded by green brackets within the HQ Window, (The buttons under the HQs within the HQ Window are described below under "Supply.")

The "Locate" button. Clicking on this button causes the hex containing the Current HQ to be centered on the screen as closely as possible.

The "Attach" button. This button is normally

blank (and therefore not functional) **except** when re-attachment of the selected unit to the Current HQ is permissible. To change a unit's attachment, first go to the HQ Sidebar and/or the HQ Window, and select the "Current HQ" that you wish to re-attach the unit **to** (i.e., the HQ that will be the **new** HQ for the unit in question). Then go to the map (or the Unit Window, if the unit is stacked beneath another one) and click on the unit to be re-attached. At this point the "Attach" label appears on the button in the sidebar if the re-attachment is permissible; clicking on "Attach" causes the selected unit to be re-attached to the Current HQ. **Note: most re-attachments are permissible only during the 6:00 AM Planning Phase of each day.** Attachment considerations are important for supply and artillery support; for more information, see those sections plus the one on "Attachment" in the Reference Manual.

The "Show" button and two others immediately below it that initially say "All Types" and "All HQ's." Clicking repeatedly on the middle or "All Types" button causes it to cycle through the different types of units that are in the game. Clicking on the lower or "All HQ's" button causes it to cycle through two levels of organization ("All HQ's" and "This HQ"). Clicking on the "Show" button causes all your units to be temporarily removed from the map **except** those of the indicated type and level of organization that are currently attached to the Current HQ. For example, suppose you are the German player in the Campaign Game and want to see at a glance all the infantry units of the 84th Infantry Division and where they are located. First click on the Current HQ at the top of the sidebar (whatever it may be) to open the HQ Window, then click on the 84th Division HQ within the HQ

Window at the bottom of the screen, and then click on the "Types" button on the sidebar until the word "Infantry" appears. Next, click on the next button down to get "This HQ," and finally click on "Show." Cycling through the "Types" and "Current HQs" allows you to quickly and easily see what units and types of units are attached to each HQ, and where they are currently located. Be sure to click on "Show" to see what you have selected. To restore all your units to the map, cycle the middle button on the sidebar to "All Types", the button below it to "All HQ's", and click on "Show."

A button and window under the label "Supply". The button is duplicated under each HQ unit within the HQ Window at the bottom of the screen. During the 6:00 AM Planning Phase of each day, these buttons are used to assign supply to your HQ's for the remainder of the day (six turns). Each HQ can be assigned its own supply level, depending on the total supply tonnage available. There are five supply levels (from highest to lowest): attack, general, defensive, minimal, and no supply. The tonnage required for each HQ is determined by the number, type, and strength of the units that are attached to it. The higher the supply level assigned to a given HQ, the more tonnage it requires for the day, and the more beneficial is the effect on the strengths and other characteristics of the units attached to it. The button located immediately beneath each HQ unit within the HQ Window at the bottom of the screen shows the current supply level of **that HQ**. The number shown immediately beneath the supply button on the sidebar is the number of tons that are required for the **Current HQ** (i.e., the one shown at the top of the sidebar) to be allocated that level of supply for the current day. To

change the supply level of an HQ, click on the "Supply" button underneath it until the desired supply level is showing. Again, recall that this can only be done during an 6:00 AM Planning Phase. **Note:** you may not voluntarily place an HQ in a state of no supply. For more information, see "Supply" in the Reference Manual.

A Window labeled "Stockpile." This window shows the tons of supply that have not yet been allocated to a particular HQ and are currently in reserve.

A button labeled "Orders." Clicking on this button opens the Divisional Movement Window at the bottom of the screen. The use of this window for divisional movement was described earlier in the section on "Movement." For more information, see "Divisional Movement" in the Reference Manual.



The Operations Sidebar

This is the right sidebar. It is used to request air support, to obtain additional information about strength modifications for a given unit or stack, and to get an estimate of the combat "odds" when planning an attack. It contains (from top to bottom):

An aircraft button to request ground support missions. Clicking on this button opens the Ground Support Window at the bottom of the screen. The first view gives information about fighter-bomber missions; to assign one or more of these, click on the desired target hex or hexes on the map. To change to light/medium bomber missions, click

on the fighter-bomber button on the left side of the window. To close the Ground Support Window, click again on the aircraft button on the sidebar. For more information, see "Ground Support" in the Reference Manual.

A blank button that has no function in Market-Garden. (It is used to request Naval Support in games where that is available.)

A strength modification summary that shows how various factors are currently modifying the strength of a unit or stack (as selected within the Unit Window at the bottom of the screen). Defense and antitank strengths are shown unless the selected unit(s) are currently under attack orders, in which case attack and armor strengths are shown (attack or defense on the left, armor or antitank on the right). A green light (gray on

B&W monitors) next to one of the words means that the strength number shown on that side of the display is being favorably modified by that factor; a red light (white on B&W monitors) means that it is being unfavorably modified, and gray (black on B&W monitors) means no modification due to that factor.

Combat Information. Below the modified strength numbers is a button labeled "? Odds ?," and a window. If you have just assigned attack orders against a particular hex, an **estimate** of the "odds" of your attack (the total attack strength currently assigned against that hex divided by its total defense strength) is shown within the window. If the "Intelligence" light at the bottom of the sidebar is green (gray on B&W monitors), the "confidence level" of those estimated odds is higher. If the light is red (white on B&W monitors), the "confidence level" of those estimated odds is lower. If you decide that the estimated odds are not high enough, you can call off the entire attack by clicking on the "**scrub**" button. This cancels **all** artillery and air attacks assigned against that hex and changes the orders of **all** the front-line units assigned to that attack to "defend if attacked."

VICTORY CONDITIONS AND VICTORY POINTS



Victory in Market-Garden is assessed numerically through the tabulation of victory points. In each scenario, victory points are awarded for possession of geographic objectives and inflicting losses on the enemy. The game keeps track of each side's current victory point total, and makes whatever adjustments are required each turn.

Each scenario has a different set of geographic objectives and their corresponding values in victory points; these geographic objectives represent the **majority** of the victory points that each side can earn. Victory points are awarded for the possession of each geographic objective at the end of each turn **and** at the end of the scenario. For each objective, the victory points awarded for possession at the end of the scenario are equal to the value of that objective to that side each turn **multiplied** by the number of turns in the scenario. In other words, each objective is worth just as much to hold at the end of the scenario as it is to hold throughout the entire scenario.

Each of these geographic objectives is labeled on the map. For information about each of these objectives, click on the "V for Victory" button at the bottom of the General Sidebar. This opens the Victory Window at the bottom of the screen. On the right side of the Victory Window are buttons labeled "Next" and "Locate." Clicking on "Next" shows you the name of each geographic objective and how many victory points per turn it is worth. Clicking on "Locate" highlights the objective on the map.

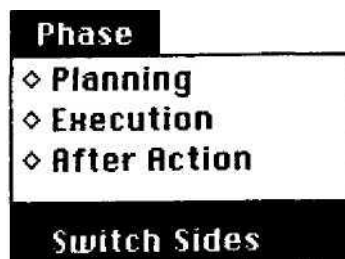
The Victory Window also contains the current victory level and the current victory point totals for both sides. To close the Victory Window, click again on the "V for Victory" button at the bottom of the General Sidebar. For more information, see "Victory Conditions" in the Reference Manual.



VICTORY LOCATION BUTTONS

There are several victory location buttons located in the lower right portion of the screen. These show the most important (though not necessarily all) geographic objectives in the current scenario, and indicate (by means of a small flag) which side currently "owns" each objective. If you click on the button for a particular objective, the main map display will shift, as necessary, to show the area around that objective. Please note that if you are playing on a Macintosh with a 12" screen or smaller, then these buttons will not appear on your display.

TWO-PLAYER PROCEDURES



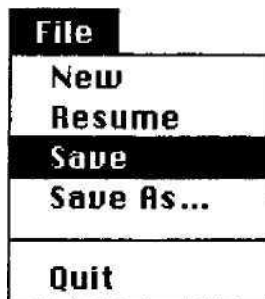
If your opponent is another player rather than the computer, you will need to take turns assigning your orders. The "first" **player** is the one whose "side" button is pressed in when "Begin New Game" is clicked on in the Scenario Selection Screen. Either an ensign or a cross appears, signifying the player who should now be at the computer. When ready, the first player should click anywhere to begin. When he has finished assigning his orders in the Planning Phase, he should click on "Phase," drag the cursor down to "Execution," and release, and then click on "Phase" **again**, drag the cursor down to "Switch Sides," and release. This causes a large ensign or

cross (as appropriate) to appear, signifying that it is now the other player's turn. The game will not actually enter the Execution Phase until **both** players have selected "Execution." When ready, the second player can click anywhere to begin. When the second player is finished and selects "Execution," both an ensign and a cross appear to signify that both players may observe the Execution Phase if they desire. To actually begin the Execution Phase, click anywhere. **Note:** the only information that appears on the map during a two-player Execution Phase is information that is known to both players. Also, if the first player selects "Switch Sides" **before** selecting "Execution," the game assumes he is not finished assigning his orders, and he will have to return to the computer later in order to select "Execution."

When the Execution Phase is over, either an ensign or a cross appears again, and the game is ready to return to the one-player-at-a-time mode of operation.

Note: the After-Action Phases for the two sides are disconnected, just like the Planning Phases. When an Execution Phase is over, the first player may review the results of the turn in the After-Action Phase, and then select "Planning" to begin the Planning Phase. When he has finished assigning his orders, he should select "Execution," and then select "Switch Sides" to turn the computer over to the other player. The second player's turn begins with the game still in the After-Action Phase of the **previous** turn.

SAVING A GAME


























When saving a game, the program creates a file that contains all the data necessary to resume the game later. "Saved Game" files contain only this data, **not** the entire game program. Also, **players should save the game only at the end of the Execution Phase or the very beginning of the Planning Phase, before any orders are assigned for a new game-turn.** This is because "Save" records only the "static" game situation that existed at the **end** of the last Execution Phase, plus target hexes for artillery and **destination hexes** for movement (**not** entire hex-by-hex movement paths). When a game is resumed, it uses the automatic movement routine to reconstruct a movement path for every unit with a recorded destination hex, and this new path may differ from the path previously assigned by the player. Battle Reports and orders of other kinds that were assigned since the last Execution Phase are not saved.

THE REFERENCE MANUAL


















In addition to this Operations Manual, the game package includes a separate Reference Manual that documents, in considerably more detail, how the various routines in the game work. The Reference Manual also contains extensive historical background Information and analyses of the real events depicted in the game, informative commentary about the units in the game, designer's notes, and a bibliography. We hope you find it useful and interesting.

VICTORY PAK MOVEMENT COSTS CHART

Unit Type:	Foot Inf./ Cavalry	Horse Drawn	Semi-Motorized	Non-Mot. HQ	Bicycle Infantry	Fully Motorized	Armored Car	Tracked Armor	Motorized HQ	Motor-Cycle
Tactical Movement Allowance	6 to 12	1 to 8	6 to 10	3 to 6	6	8 to 12	16	8 to 14	8 to 10	14
Strategic Movement Multiplier	X 1.5	X 2	X 2	X 2	X 2.5	X 2.5	X 2	X 2	X 2	X 2
Terrain Types:	Movement Points to Enter and Leave. Note: bottom row figures indicates movement costs for Velikiye Luki Freeze (LF)/Hard Freeze (HF) /Deep Snow (DS).									
Clear Terrain 	0.5 1.0/0.5/1.0	0.5 1.0/0.5/2.0	0.5 1.0/0.5/2.0	0.5 1.0/0.5/2.0	0.5	0.5 1.0/0.5/2.0	0.5 1.0/0.5/1.5	0.5 1.0/0.5/1.0	0.5 1.0/0.5/2.0	1.0/0.5/1.5
Forest 	1.5 2.0/1.5/2.0	2.5 3.0/2.5/4.0	2.0 2.5/2.0/5.0	2.5 3.0/2.5/4.0	1.5	3.5 4.0/3.5/5.0	2.5 3.0/2.5/4.0	2.5 3.0/2.5/3.5	3.5 4.0/3.5/5.0	3.0/2.5/5.0
Bocage 	0.75	1	1	1	0.75	2	1.5	1.5	2.0	—
Swamp 	2	P	P	P	2	P	P	P	P	—
Swamp Road 	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	—
Polder 	0.5	0.5	P	0.5	—	P	P	P	P	—
Beach 	0.5	0.75	0.75	0.75	0.5	1	0.5	0.5	1	—
Invasion Beach 	0.5	0.75	0.75	0.75	0.5	1	0.5	0.5	1	—
Village 	0.5 0.5/0.5/1.0	0.5 0.5/0.5/2.0	0.5 0.5/0.5/1.0	0.5 0.5/0.5/1.0	0.5	0.5 0.5/0.5/1.0	0.5 0.5/0.5/1.0	0.5 0.5/0.5/1.0	0.5 0.5/0.5/1.0	0.5/0.5/1.0
Bunkers 	0.5 0.5/0.5/1.0	0.5 0.5/0.5/2.0	0.5 0.5/0.5/1.0	0.5 0.5/0.5/1.0	0.5	0.5 0.5/0.5/1.0	0.5 0.5/0.5/1.0	0.5 0.5/0.5/1.0	0.5 0.5/0.5/1.0	0.5/0.5/1.0
Beach ⁴ Bunker 	0.5	0.75	0.75	0.75	0.5	1	0.5	0.5	1	—
Fortress 	0.5 0.5/0.5/1.0	0.5 0.5/0.5/2.0	0.5 0.5/0.5/1.0	0.5 0.5/0.5/1.0	0.5	0.5 0.5/0.5/1.0	0.5 0.5/0.5/1.0	0.5 0.5/0.5/1.0	0.5 0.5/0.5/1.0	0.5/0.5/1.0
Lake 	P/0.5/1.0	P/1.0/2.0	P/1.0/2.0	P/1.0/2.0	—	P/1.0/2.0	P/1.0/1.5	P/1.0/1.0	P/1.0/2.0	P/1.0/1.5
Hill 	+0.5 +0.5/0.5/0.5	+0.5 +0.5/0.5/1.0	+0.5 +0.5/0.5/1.0	+0.5 +0.5/0.5/1.0	+0.5	+0.5 +0.5/0.5/1.0	+0.5 +0.5/0.5/0.5	+0.5 +0.5/0.5/0.5	+0.5 +0.5/0.5/1.0	+0.5/0.5/1.0
Stream* 	+0.5 +0.5/0.5/0.0	+1.0 +1.0/1.0/0.0	+1.0 +0.5/0.5/1.0	+0.5 +0.5/1.0/0.0	+0.5	+1.0 +1.0/1.0/0.0	+0.5 +0.5/0.5/0.0	+0.5 +0.5/0.5/0.0	+1.0 +1.0/1.0/0.0	+0.5/0.5/0.0
River or Canal** 	+4.0 +0.5/0.5/0.0	P P/+1.0/0.0	P P/+1.0/0.0	P P/+1.0/0.0	+4.0	P P/+1.0/0.0	P P/+0.5/0.0	P P/+0.5/0.0	P P/+1.0/0.0	P/+0.5/0.0
Dike** 	+0.5	+0.5	+0.5	+0.5	—	+0.5	+0.5	+0.5	+0.5	—
Secondary Road*** 	0.375 375/375/1	0.25 25/25/1.0	0.25 25/25/1.0	0.25 25/25/1.0	0.25	0.25 25/25/1.0	0.25 25/25/1.0	0.25 25/25/1.0	0.25 25/25/1.0	25/25/1.0
Primary Rd. 	0.25	0.25	0.25	0.25	0.15	0.125	0.125	0.165	0.125	—
Railroad 	375/375/1	25/25/1.0	25/25/1.0	25/25/1.0	—	25/25/1.0	25/25/1.0	25/25/1.0	25/25/1.0	25/25/1.0
Inf. Bridge**** 	+6	+6	+6	+6	—	P	P	P	P	—
Tank Bridge**** 	+125	+125	+125	+125	—	+125	+125	+125	+125	—
Ferry**** 	+3	+3	+5	+3	—	+5	+5	+5	+5	—

P • Prohibited; onto of this type may not enter or cross * • extra movement points to cross except at a bridge. ** • extra movement points to cross hill hexside, moving uphill (no cost or benefit for moving downhill) — - cost to move along road using strategic movement; ignore other terrain in hex.
 • extra movement points to cross, using either tactical or strategic movement. Note: Major Rivers cannot be crossed by any unit except at bridges. City terrain yields the same movement costs as Village terrain. Engineer crossings (represented by an 'E' with a circle around it) cost Foot Infantry/Calvary +3 movement points. No other units may cross.

VICTORYPAK TERRAINEFFECTS CHART

Terrain Types	Combat Effects of Terrain Type; Other Terrain Notes
Clear Terrain 	None.
Forest 	Incoming artillery halved (except DS - quartered), defender's antitank strength multiplied by 2.5, attack odds into reduced by 3.
Bocage 	Incoming artillery halved, defender's antitank strength doubled, attack odds into reduced by 2.
Swamp 	Incoming artillery halved, all units attack out of at half strength, armored and motorized units attack into at half strength, attack odds into reduced by 1; units may not dig in, fortifications take 8 rums to construct.
Polder 	Armored and motorized units attack into or out of at half strength, armor strengths or attacking units halved when attacking into or out of polder.
Beach 	Incoming artillery halved, attack odds into reduced by 1; lower stacking limit.
Invasion Beach 	Incoming artillery halved, attack odds into reduced by 1; higher stacking limit.
Village 	Incoming artillery halved (except DS - quartered), defender's antitank strength multiplied by 1.5, attack odds into reduced by 2.
City 	Incoming artillery halved (except DS - quartered), defender's antitank strength doubled, attack odds into reduced by 3; higher stacking limit.
Bunkers 	Incoming artillery quartered (except DS - 1/8), defender's antitank str. doubled and defense str. multiplied by 2.5, defender's ignore retreat results, <u>attack odds into reduced by 3; units may not dig in or fortify.</u>
Beach Bunkers 	Incoming artillery quartered, defenders antitank str. doubled and defense str. multiplied by 2.5, defenders ignore retreat results, <u>attack odds into reduced by 3; lower stacking limit; units may not dig in or fortify.</u>
Fortress 	Incoming artillery quartered (except DS - 1/8), defender's antitank strength, doubled and defense strength tripled, defenders ignore retreat results, <u>attack odds into reduced by 3; units may not dig in or fortify.</u>
Lake 	LF: None; prohibited terrain for all units. HF: All non-artillery units attack out of at half strength DS: Becomes clear terrain for all purposes.
Hill 	All non-artillery units attacking uphill have their attack and armor strengths reduced by 25 percent, all non-artillery units attacking downhill <u>have their attack and armor strengths increased by 25 percent.</u>
Stream 	None
River or Canal 	LF: All non-armored, non artillery units attack across at 1/2 str., armored and motorized units attack across at 1/4 str., armor str. of attacking units 1/2 at road hex sides and 1/4 at non-road hexsides. HF/DS: None.
Dike 	All non-artillery units attacking across have their attack and armor strengths reduced by 25 percent.

Note: Primary and Secondary roads, Railroads, Infantry, Tank, Ferry, and Engineer crossings have no terrain effects, the terrain effect is determined by the terrain in which they are present.

V for Victory Keyboard Equivalents (Menu -Options) PC and

Stan New Game (Alt-N or Command-N)
 Resume Old Game (Alt-R or Command-R)
 Save Game (Alt-S or Command-S)
 Close View (Alt-I or Command-I)
 Plan Fire Support Now (Alt-F or Command-F)
 Plot Ground Units Now (Alt-G or Command-G)
 Show Planned Moves (Alt-Z or Command-Z)
 Initiate Execution Phase (Alt-E or Command-E)
 Initiate Planning Phase (Alt-P or Command-P)
 Show Supply Lines (Alt-J or Command-J)
 Show Hex Ownership (Alt-3 or Command-3)
 Show Hex Borders (Alt-4 or Command-4)

Numerals 1-9: Scrolls the map; keypad uses the same layout as scroll pad.

A or a: Cycles thru the attack options for the selected unit.

S or s: Cycles thru movement options For the selected unit.

D or d: Cycles thru defend options for the selected unit.

F or f: For engineers, cycles between digging in and building field fortifications. For all other units cycles thru digging in or not digging in.





















































Backspace (Delete): Cancels last order given to selected unit.

Esc (Clear): Cancels all orders for selected unit.

All hold-down (Command): targeting mode for artillery unit.

Shift hold-down: Selects entire stack for issuing orders,

UNIT SYMBOLS CHART

Pictoral Icon:	Military Symbol:	Type of Unit:
		Infantry
		Airborne Inf.
		Glider Inf.
		Machine Gun
		Naval Infantry
		Commando
		Semi-Mot. Inf.
		Mot. Infantry
		Engineer
		Semi-Mot. Eng.
		Mot. Engineer
		Bridge Eng.
		Bicycle Inf.
		Artillery
		Mot. Artillery
		Coastal Art.
		Mot. Arb. Art.
		Light AA
		Semi-Mot. Light AA
		Semi-Mot. Heavy AA
		Motorized Light AA
		Motorized Heavy AA
		Anti-Tank
		Semi-Mot. Anti-Tank
		Motorized Anti-Tank
		Mech. Recon
		Tank
		HQ
		Mot. HQ

Note: The above unit symbols chart portrays the most common units found in Utah Beach, Velikiye Luki, and Market Garden.